3. PLAN ELEMENTS AND ACTIVITIES

3.1. OVERVIEW

This chapter describes actions MDOT will take to fulfill the Permit requirements for Public Education, Outreach, and Participation; Illicit Discharge Elimination; Post Construction Storm Water Management for New Development and Redevelopment Projects; Construction Storm Water Runoff Control; and Pollution Prevention/Good Housekeeping for MDOT Operations. Each element of the MDOT Storm Water Management Plan (SWMP) is supported by a narrative and multiple activities. Each activity is described in Section 3.7 of this plan and includes the following information:

- Activity name,
- Parties affected or targeted by the activity,
- Objective/description of the activity,
- Annual reporting mechanisms,
- Permit requirement fulfilled by the activity,
- Measurable goals and interim milestones associated with the activity,
- Implementation schedule, and
- Who is responsible for implementing or follow up on the actions.

The activities are organized into five groups; Education/Outreach (E), Training (T), Illicit Discharge Elimination Program (I), Construction, Post-Construction and Good Housekeeping BMPs (C) and Administrative (A). Several of the activities fulfill more than one of the Permit requirements. Table 3-1 provides the text of each Permit requirement and identifies the activities to address that requirement.

Where job-related public education training programs are called for, the programs will be prepared and implemented in a manner to train employees most likely to encounter the specific SWMP activities as part of their normal work responsibilities. This targeted training will allow MDOT to use resources most effectively while ensuring compliance with the Permit.

<u>Education/Outreach Activities</u>

E-1: Maintain and Use Lansing Information Center
E-2: Publish Articles in MDOT Publications
E-3: Provide Information on Watershed Stewardship on MDOT Public Web Site
E-4: Provide Education Materials along with Discharge/Tap-In Permit Applications
E-5: Notify and Invite Public to Review and Comment on the Storm Water Management Plan
E-6: Determine Partnership Potential with MDEQ Statewide Public Education Program

<u>Training Activities</u>

T-1: Present Applicable Training Modules to the Job-Related Public
T-2: Certify MDOT's Staff for Pesticide/Fertilizer Application
T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Stormwater Operators as Required under Part 31
T-4: Survey MDOT Staff on Storm Water Knowledge

Illicit Discharge Elimination Program Activities

I-1: Submit and Implement Mapping Schedule for Outfalls (urbanized areas only)
I-2: Perform Inventory and Dry Weather Screening on Outfalls
I-3: Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken
I-4: Report Updates and Changes to Legal Authority Status
I-5: Map Known Outfalls (statewide)

Construction, Post Construction, and Good Housekeeping BMPs

C-1: Maintenance Requirements for MDOT Permanent Best Management Practices (BMPs) (Post-Construction)
C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPOs) having Storm Water Quality Control Programs
C-3: Procedure to Select, Apply, and Maintain Permanent Best Management Practices (BMPs) for Storm Water Management Activities (Post-Construction)
C-4: Procedure to Work with MDEQ for Early Coordination on Initial Design Projects
C-5: Review Projects with Storm Water Discharges to Water Bodies with a Promulgated Total Maximum Daily Load (TMDL)
C-6: Implement Procedures to Select, Apply, and Maintain Permanent Best Management Practices for Storm Water Management Activities (Post-Construction)
C-7: Internal Quality Assurance/Quality Control (QA/QC) Protocol for Construction Storm Water Control
C-8: Periodically Update Drainage Manual
C-9: Documentation and Tracking of Road Maintenance Activities
C-10 Procedure for Outfall Labeling
C-11: Review Flow Control Structures
C-12: Audit the Pollution Incident Prevention Plan (PIPP) Requirements

Administrative Activities

A-1: Program Assessment and Reporting

Table 3-1 Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part I.B Storm Water Management Program - Minimum Measures	
Part I.B. paragraph 2:If a water body has a TMDL, develop, implement and enforce storm water controls to meet the space responsibilities established by the TMDL.	C-5
Part I.B. paragraph 3: The MEP requirement shall be met by implementation of BMPs to comply with minimum measures for which the permittee has authority, implementation of BMPs to comply with minimum levels of storm water pollution control established in TMDLs, if applicable, and a demonstration of effectiveness or environmental benefit for each BMP.	T-4 A-1
Part I.B. paragraph 3: Within areas with watershed management plans, reducing discharge to the maximum extent practicable (MEP) shall include implementation of BMPs to comply with watershed goals.	C-2
Part I.B.1 Education and Outreach on Storm Water Impacts - Public Education Program	
Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.	E-1 E-2 E-3 T-1
Part I.B.1.a(2): Instruct the job-related public to report the presence of illicit discharges or improper disposal of materials into the Permittee's [MDOT's] drainage system.	T-1
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement a program.	E-1 E-2 E-3 T-1
Part I.B.1.b: If the Department [MDEQ] develops a statewide public education program, the permittee [MDOT] may either seek a partnership agreement with the Department [MDEQ] for implementation of Part I.B.1.b. of this permit, or develop and implement a program to increase awareness and seek positive public behavior.	E-6
Part I.B.1.b(1): [within urbanized areas] Educate the general public about water quality protection/hazards of improper disposal. Encourage public reporting of improper disposals into system. Educate the public about proper control for construction sites.	E-6
Part I.B.1.b(2): [within urbanized areas] Educate the general public about preferred car cleaning agents and procedures for non-commercial car washing.	E-6
Part I.B.1.b(3): [within urbanized areas] Educate the general public about watershed awareness, responsibilities and stewardship to the watershed.	E-6
Part I.B.1.b(4): [within urbanized areas] Educate the general public about water quality impacts of residential de-icer use.	E-6
Part I.B.1.c: Provide pollutant prevention information to applicants that apply to tap into the MDOT drainage system.	E-4
Part I.B.1.c: Train MDOT employees to provide pollution prevention education during tap-in application process.	E-4
Part I.B.2: Public Involvement/Participation	
Part I.B.2: Encourage public input.	E-5
Part I.B.2.a: Notify public of when and where preliminary and final SWMP are available for review.	E-5

Table 3-1 Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part I.B.2.b: Input shall be actively sought from NPDES watershed permit stakeholder groups and local stream or watershed protection organizations within urbanized areas for comment on the SWMP.	E-5
Part I.B.2.c: Where MPOs exist, MDOT shall identify and cooperate with local storm water master planning processes and the MPO. MDOT shall implement storm water controls as necessary to cooperate with local storm water master plans.	C-2
Part I.B.3: Illicit Discharge Elimination Program	
Part I.B.3.a: Within one year, submit schedule for providing maps of known outfalls and all outfalls at roadway crossings within the urbanized areas. Maps shall be developed for outfalls at roadway crossings no later than expiration of permit.	I-1 I-5
Part I.B.3.b: Outfalls shall be prioritized and top priority outfalls (305(b) listed water bodies) shall be screened for dry weather discharges.	I-2
Part I.B.3.b: Use screening results to identify and eliminate illicit discharges as expeditiously as practicable.	I-2
Part I.B.3.b: Illicit connections that cannot be disconnected immediately shall be identified in the annual report and schedule of work to be completed during the following year.	I-2
Part I.B.3.c: Provide a system to accept and respond statewide to reports of illicit discharges received from the job-related public.	I-3
Part I.B.3.d(1): Legal authority to regulate the contribution of pollutants to the drainage system.	I-4
Part I.B.3.d(2): Legal authority to regulate the rate of water inflow.	I-4
Part I.B.3.d(3): Legal authority to prohibit illicit connections/discharges into drainage system.	I-4
Part I.B.3.d(4): Legal authority requiring compliance with conditions in permit.	I-4
Part I.B.4: Post Construction Storm Water Management Program for New Development and Redevelopment Projects	
Part I.B.4.a: Program to coordinate with local planning efforts that conforms to the cooperative planning requirements of 23CFR450.210 and 23CFR450.312 and which considers potential environmental effects of impervious surfaces.	C-2
Part I.B.4.a: MDOT shall make information available to local planning efforts.	C-2
Part I.B.4.b(1): Requirements for implementation of BMPs.	C-3 C-5 C-6
Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.	C-1 C-3 C-6
Part I.B.4.c: Develop and implement a process for review of BMPs.	C-8 C-11
Part I.B.4.c: Allow MDEQ review of preliminary construction plans and provide input on placement of drainage and BMPs.	C-4
Part I.B.5: Construction Storm Water Runoff Control	
Part I.B.5.a(1): Implement soil erosion and sedimentation controls.	T-3 C-7

Table 3-1 Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part I.B.5.a(2): Control demolition and construction waste materials, concrete truck washout, chemicals, litter and sanitary waste at construction sites.	T-3 C-7 C-8
Part I.B.5.a(3): Consider potential water quality impacts during road construction plan reviews.	T-3 C-7
Part I.B.5.a(4): Inspect sites to assure pollution control measures are appropriate.	T-3 C-7
Part I.B.5.b(1): Notify the MDEQ of non-MDOT construction activities that deposit/threaten deposition of pollutants into the MDOT drainage system.	I-3
Part I.B.5.b(2): Procedure to receive complaints regarding construction site runoff and to take corrective actions in accordance with the SESC plan.	I-3
Part I.B.6: Pollution Prevention/Good Housekeeping for MDOT Operations	
Part I.B.6: Ensure MDOT employees maintain and follow proper pollution prevention controls.	E-3 T-1 T-3 C-9 C-12
Part I.B.6: Train employees to prevent storm water pollution.	T-1 T-3
Part I.B.6.a(1): Statewide routine maintenance for structural controls.	C-1 C-8 C-12
Part I.B.6.a(1): Describe and implement procedures for proper disposal of operation and maintenance waste.	C-9
Part I.B.6.a(2): If necessary, enhance structural controls and cleaning schedules for adequate pollutant control.	C-1 C-6 C-12
Part I.B.6.b(1): Statewide, construct, operate, and maintain surfaces to reduce discharge of pollutants into system including salt, sand, asphalt and concrete from road resurfacing activities.	C-9
Part I.B.6.b(1): Good Housekeeping implemented at salt and sand storage facilities	C-9
Part I.B.6.b(2): Maintain existing street cleaning and catch basin maintenance activities.	C-9
Part I.B.6.c: Provide permanent identification of outfalls installed after April 1, 2005 that discharge into waters of the state. The primary operator of the drainage system shall be readily identifiable by observation of the outfall.	C-10
Part I.B.6.d: Ensure new storm water flow management projects assess impacts of water quality on the receiving water and, whenever possible, examine existing projects for incorporation of water quality protection.	C-11
Part I.B.6.e: Assure vehicle maintenance activities do not pollute storm water runoff.	C-12
Part I.B.6.f: Minimize the discharge of pollutants related to storage, handling and use of herbicides/fertilizers.	T-2
Part I.B.6.f: Provide employee training for herbicides/fertilizers to protect water quality.	T-2

Table 3-1 Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part 1.C: Program Assessment and Reporting	
Part I.C.1.a: By April 1, 2005 the first annual progress reports describing the progress toward compliance with requirements of the permit shall be submitted, by Region, to the DEQ for approval. The first year report shall include an approvable storm water management plan. Also included shall be a listing of BMPs for the minimum measures, measurable goals and a report of the program effectiveness. Subsequent progress reports shall be submitted annually by April 1.	A-1

3.2. PUBLIC EDUCATION, OUTREACH AND PARTICIPATION

This section describes activities MDOT conducts or will implement to fulfill Permit requirements for a public education, outreach, and participation program.

3.2.1. Measurable Goals and Interim Milestones

The following list summarizes activities, corresponding interim milestones and measurable goals that support the Public Education, Outreach and Participation Plan. Details on how these activities and measurable goals will be implemented are presented in Section 3.7.

Activity E-1: Maintain and Use Lansing Storm Water Information Center

Measurable Goals

- The library of storm water-related materials will be updated quarterly with the most recent guidance, research, publications and training materials.
- A list of storm water-related materials will be updated quarterly on the MDOT Storm Water Public Web Site starting December 31, 2006.
- Quarterly notices will be made in the Monday Memo to advertise the storm water-related library material by August 1, 2005.
- The library of storm water-related materials will be moved to a more prominent location by August 1, 2005.
- A system will be developed to track the checkout of library materials by August 1, 2005.
- A general survey of storm water awareness will be conducted in 2005 and 2008 as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of the library.

Activity E-2: Publish Articles in MDOT Publications

Measurable Goals

- Develop and publish storm water-related articles in a Region-based newsletter, Adopt-A-Highway, Monday Memo or other appropriate newsletters at least quarterly throughout the Permit cycle. Contract agencies will be included on the newsletter distribution list.
- Provide storm water information to contract agencies through the Michigan Local Technical Assistance Program (LTAP) by February 1, 2006.
- A general survey of storm water awareness will be conducted in 2005 and 2008 as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of article publication.

Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

Measurable Goals

- The MDOT Storm Water Public Web Site will be updated quarterly with the most recent MDOT storm water information and news.
- A link to the MDOT Storm Water Public Web Site will be added to the MDOT Public Web Site home page by April 1, 2006.
- A storm water-related quiz/comment form will be developed for inclusion on the MDOT Storm Water Web Site by December 31, 2005.
- A general survey of storm water awareness will be conducted in 2005 and 2008 as

described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of the web site.

Activity E-4: Provide Education Materials along with Tap-in/Discharge Permit Applications

Interim Milestones

- Develop educational material to be included in the tap-in/discharge permit application by April 1, 2005.

Measurable Goals

- Distribute education materials to 100% of tap-in/discharge permit applicants ongoing beginning April 1, 2005.
- Instruct MDOT staff to distribute materials as instructed in the revised Construction Permit Manual (CPM) by June 1, 2005.
- Review the adequacy of the procedure for distributing materials every five years.

Activity E-5: Notify and Invite Public Review and Comment on the SWMP

Measurable Goals

- Post the Draft SWMP on MDOT's Storm Water Web Site by November 24, 2004.
- Distribute copies of the draft SWMP to all Transportation Service Centers (TSCs) and Region Offices by November 24, 2004.
- Distribute letters announcing the review and comment period for the draft SWMP to over 200 local watershed groups (Appendix E) by November 24, 2004.
- Report and respond to the number of people/groups who comment on the SWMP by April 1, 2005.
- Post the Final SWMP on MDOT's Storm Water Web Site by April 1, 2005.
- Notify public groups who commented on the Draft SWMP that the Final SWMP is available on the MDOT Storm Water Web Site by April 1, 2005.

Activity E-6: Determine Partnership Potential with MDEQ Statewide Public Education Program

Measurable Goals

- Attend meetings with MDEQ statewide education committee and MDEQ decision makers.
- Obtain statewide campaign materials including cost to participate and evaluate the potential value of entering into a partnership with MDEQ.
- Develop participation agreement with MDEQ or develop an MDOT Public Education Plan (PEP).

Activity T-1: Present Applicable Training Modules to the Job-Related Public

Interim Milestones

- Determine target audiences for the storm water modules by June 1, 2005.
- Add storm water awareness training to existing MDOT training database (On-Track) to track individual employee training. Include training modules as part of select employee performance evaluations in 2006.
- Provide ongoing train-the-trainer preparation for presenters.

- Ensure modules regularly are delivered during staff meetings and other meetings as warranted.
- Develop training evaluation surveys by July 1, 2005.

Measurable Goals

- Review and update modules annually starting October 1, 2005.
- Train Region/TSC Staff with storm water-related responsibilities on the four storm water modules by April 1, 2009.
- Encourage trainees to complete training evaluation at the close of each training session starting August 1, 2005.
- Provide modules to contract agencies and contracting associations with a request to use the modules. Provide information through the Michigan Local Technical Assistance Program (LTAP) by February 1, 2006.
- A general survey of storm water awareness will be conducted in 2005 and 2008 as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of training.

Activity T-4: Survey MDOT Staff on Storm Water Knowledge

Interim Milestones

- Develop and prepare baseline survey for distribution by March 1, 2005.

Measurable Goals

- Conduct a survey of MDOT Staff on storm water knowledge during 2005 and again during 2008.
- Review the 2005 survey for baseline information by April 1, 2006.
- Review the 2008 survey to determine program effectiveness by April 1, 2009.
- Increase the number of staff who are fully aware of MDOT's storm water program by 20% from 2005 to 2008.

Activity C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPO)s Having Storm Water Quality Control Programs.

Measurable Goals

- Notify recognized watershed and environmental groups that MDOT is accepting input on special BMP requirements for sensitive streams or portions of streams by June 1, 2005.
- Consider watershed and environmental group input during early coordination of MDOT transportation projects ongoing beginning April 1, 2006.

3.2.2. Job-Related Public Education, Outreach and Participation

Part I.B.1 of the Permit defines "Job-Related Public" as MDOT employees and contractors in design, construction and maintenance activities, who potentially could affect the quality of storm water discharges through their job-related activities.

Notice of Storm Water Management Plan

MDOT will notify the job-related public of the SWMP. Notification will provide this audience with information on the content of the SWMP, the stated goals and how the SWMP will affect their job.

This notification will occur through various internal and public media.

MDOT will also keep the job-related public informed through a series of presentations on various aspects of the SWMP. Each presentation, or training module, is designed to be approximately 15 minutes in length with an approximate 15 minute question and answer session following. The number of sessions presented, dates, employees in attendance and their work area are recorded in a database. The current training modules are:

- Module One: Introduction to Storm Water Management, is a basic introductory session.
- Module Two: Best Management Practices, educates employees about the approved MDOT BMP List (see Chapter 2).
- Module Three: Maintenance Considerations, presents BMP maintenance requirements.
- Module Four: Illicit Discharge Elimination Program (IDEP) introduces The IDEP and provides procedures to follow should employees suspect they have located an illicit discharge.

Illicit Discharges and Improper Waste Disposal

MDOT will educate targeted employees about illicit discharges and improper waste disposal. In addition, employees will be directed to visit the MDOT Storm Water Management Web Site, which features an interactive, educational demonstration about illicit discharges and improper waste disposal.

Training Module Four addresses illicit discharges and improper waste disposal. The module targets employees most likely to encounter illicit discharges or improper waste disposal during the course of their daily activities, especially while conducting field work. These areas include Planning, Design, Real Estate, Construction and Technology, and Region TSC/Maintenance Staff. Employees are instructed to follow MDOT reporting procedures if a discovery is made.

Watershed Stewardship

MDOT will encourage the job-related public to be good stewards of their watersheds and understand the ultimate outfall and discharge points and potential impacts of storm water. MDOT will encourage participation in the Adopt-A-Highway litter pick-up program and similar local programs. MDOT will also educate the job-related public about good housekeeping and pollution prevention principles. One of the important tools available for providing information to the job-related public is the Drainage Manual. This manual was developed to provide MDOT designers and design consultants with policies and procedures for designing drainage facilities with MDOT's storm water BMPs. A summary of changes made to improve the manual will be provided in the annual progress report.

A series of articles written on watershed stewardship will be included for publication in MDOT media as well as newsletters reaching contract agencies. Topics include lawn and garden activities, proper disposal of household hazardous waste, travel trailer sanitary waste disposal, pet waste management and trash management. The articles discuss how pollutants are carried by storm water runoff and are eventually deposited into nearby lakes and streams. Each article provides useful resources, such as an environmental-friendly pesticide list, household hazardous waste collection centers and businesses that accept travel trailer sanitary waste.

The MDOT Storm Water Management Web Site provides a host of useful information on storm water and watershed stewardship. This includes information on local watershed groups, river clean-up activities, household hazardous waste disposal, yard waste recycling and disposal, trash

management, septic tank management and other activities. The "Links" section includes a link to each Phase II Community in Michigan with a Web site.

A storm water management brochure has been distributed to Transportation Service Centers (TSCs) and Region Offices across the State of Michigan. The brochure discusses the intent of the MDOT SWMP and educates about illicit discharges.

MDOT has established the Lansing Information Center, containing various resources related to storm water and watershed stewardship. The Lansing Information Center is part of the MDOT Library at the Murray D. Van Wagoner Building, 425 W. Ottawa Street, Lansing MI 48909. Resources from the Lansing Information Center are available to all of the job-related public upon request. In addition, the Lansing Information Center houses a series of notebooks for each of the Phase I communities with examples of local public education materials, such as brochures, guidebooks, posters, and videos including resources from the Southeast Michigan Council of Governments (SEMCOG). A complete list of the Lansing Information Center content is available from MDOT's Aquatic Resource Specialist within the Environmental Section.

Contract agencies will be added to newsletter distribution lists to receive storm water-related information. MDOT currently works with Michigan Technological University to provide transportation-related information to the contract agencies through the Local Technical Assistance Program (LTAP). LTAP serves as the Technology Transfer (T2) effort of the Federal Highway Administration's Office of Professional Development. LTAP information can be accessed on-line at http://www.michiganltap.org/.

Storm Water Surveys

Two separate job-related public surveys will be conducted within MDOT, 1) training module evaluation surveys (Activity T-1), and 2) a general storm water awareness survey (Activity T-4).

The training module evaluation surveys will be administered at the close of a training module presentation. The survey will contain questions for providing feedback on the training session as well as questions to determine the effectiveness of the training. Completion of the surveys will be encouraged. MDOT will provide surveys to contract agencies along with the modules and will encourage participation as a way to assist MDOT in evaluating and enhancing their program. Results of the surveys will determine how the modules can be enhanced to better communicate the storm water-related information.

The general storm water awareness survey is intended to measure the effectiveness of MDOT's overall job-related public education efforts. The survey will contain general storm water awareness questions as well as questions specific to design, maintenance, and construction staff and will be administered during the 2005 conferences and training sessions for baseline information and again during the 2008 conferences and training sessions for comparison. The survey will be conducted such that a representative mix of administrative, technical, professional, and engineering staff are surveyed both in the central office and in the region offices. Results from the survey will determine where additional or revised education efforts will be concentrated.

3.2.3. General Public Education

Part I.B.1 of the Permit defines "General Public" as the people who travel state roadways and requires that MDOT educate the general public within urbanized areas about water quality protection

and storm water as a pollution source. The Permit provides that if MDEQ develops a statewide public education program, MDOT may either seek a partnership agreement with the MDEQ for implementation of Part I.B.1.b of the Permit, or develop and implement a program to increase awareness and seek positive behavior.

Should MDOT decide to develop and implement a program, many of the activities that MDOT conducts to provide education to the job-related public will be evaluated to determine their practicability for general public storm water awareness. These efforts include maintaining the Storm Water Management Web Site and distribution of the storm water management brochure.

Public Meetings/Hearings

Storm water-related public involvement issues can be addressed on a project specific basis through MDOT's public involvement process during project planning.

3.2.4. Education on Tap-In/Discharge Permit

MDOT has developed educational materials that are being provided to applicants seeking tap-in/discharge permits for accessing MDOT's drainage system. This material focuses on prohibiting the occurrence of illicit connections into MDOT's system and includes information describing an illicit discharge/connection and reporting/contact information. MDOT employees provide the material to the applicant as part of the permit application packet.

Section 14.01 of the Construction Permit Manual (CPM) details requirements for issuing a tap-in/discharge permit. According to Section 14.01 of the CPM, the applicant is responsible for ensuring that any discharge to MDOT's drainage system will not cause a violation of MDOT's NPDES storm water discharge permit. MDOT requires that each permit applicant submit as-built drawings signed by a registered Professional Engineer in Michigan or a letter indicating no significant changes from the plans were made in the field.

MDOT has the legal authority to conduct required inspections within MDOT's ROW according to Section 9.13 of the Construction Permit Manual if an illicit discharge/connection is suspected.

3.2.5. Notification of Watershed and Environmental Protection Organizations

MDOT followed state and federal public notice requirements when notifying the public that a storm water management plan must be implemented. MDOT specifically targeted local stream or watershed protection and environmental protection organizations (Appendix E) and invited them to review and comment on the SWMP.

Comments on the draft plan were accepted for a 30-day period prior to the completion of this final plan. All public comments received are summarized in Appendix F of this SWMP. This final plan and the annual progress reports will be made available on the MDOT Web site for public access at the time it is submitted to MDEQ.

3.2.6. Cooperation with Local MPOs and Storm Water Master Plans

MDOT will extend an invitation to recognized watershed groups requesting that they submit comments identifying specific areas of concern related to storm water issues and transportation land use. MDOT will also request that the watershed groups identify local requirements for post-construction BMP installation for road projects that generally have the greatest potential of causing an adverse impact (major action road projects as defined pursuant to the National Environmental

Policy Act). This input will be sought during the public comment period for Environmental Assessment and Environmental Impact Statement documents. MDOT will take these identified areas and local requirements into consideration during early coordination of projects for water quality BMP inclusion.

In addition to this effort, MDOT is developing a Contact Sensitive Solutions (CSS) initiative. The MDOT CSS initiative will include a means for early stakeholder involvement in projects involving sensitive areas and anticipates having a formalized process in place by the end of 2005.

MDOT is currently involved in some watershed groups including attending Rouge River Storm Water Advisory Groups and other local watershed group meetings on an as needed basis.

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3.3. ILLICIT DISCHARGE ELIMINATION PLAN

This section describes the strategy that MDOT will follow to implement permit requirements for an Illicit Discharge Elimination Plan (IDEP) as it applies to MDOT's storm water drainage system and facilities.

An **illicit discharge** is the discharge or seepage of water that is not composed entirely of storm water into the drainage system, except for discharges specified in Parts I.A.1.b and c. of the Permit. Illicit discharges include dumping of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, domestic animal wastes, litter or unauthorized discharges of sewage, industrial waste, restaurant wastes or any other non-storm water waste into the drainage system.

An **illicit connection** is a physical connection to the drainage system that 1) primarily conveys illicit discharges into the drainage system and/or 2) is not authorized or permitted by MDOT (where MDOT requires such authorization or permit).

Illicit discharges may be conveyed to the MDOT drainage system by one of two methods 1) discharge directly from the end of a pipe or other conduit regardless of whether the pipe is an illicit connection or not and 2) non end-of-pipe discharge including overland flow or a release from a waste container. These two transmission mechanisms will be addressed separately in this plan as they will generally require different types of response.

Outfall mapping, IDEP field investigations, illicit discharge reporting, the legal authority to regulate and/or prohibit illicit discharges and training are each addressed by the activities and measurable goals in the following subsection and described in detail in the remaining subsections.

3.3.1. Measurable Goals and Interim Milestones

The following list summarizes activities and corresponding interim milestones and measurable goals that support the Illicit Discharge Elimination Plan (IDEP). Details on how these activities and measurable goals will be implemented are included in Section 3.7.

Activity E-4: Provide Education Materials along with Tap-In/Discharge Permit Applications

Interim Milestones

- Develop educational material to be included in the tap-in/discharge permit application by April 1, 2005

Measurable Goals

- Distribute education materials to 100% of tap-in/discharge permit applicants ongoing beginning April 1, 2005.
- Instruct MDOT staff to distribute materials as instructed in the revised Construction Permit Manual (CPM) by June 1, 2005.
- Review the adequacy of the procedure for distributing materials every five years.

Activity T-1: Present Applicable Training Modules to the Job-Related Public

Interim Milestones

- Determine target audiences for the storm water modules by June 1, 2005.
- Add storm water awareness training to existing MDOT training database (On-Track) to

track individual employee training. Include training modules as part of select employee performance evaluations in 2006.
- Provide ongoing train-the-trainer preparation for presenters.
- Ensure modules are regularly delivered during staff meetings and other meetings as warranted.
- Develop training evaluation surveys by July 1, 2005.

Measurable Goals
- Review and update modules annually starting October 1, 2005.
- Train Region/TSC Staff with storm water-related responsibilities on the four storm water modules by April 1, 2009.
- Encourage trainee to complete training evaluation at the close of each training session starting August 1, 2005.
- Provide modules to contract agencies and contracting associations with a request to use the modules. Provide information through the Michigan Local Technical Assistance Program (LTAP) by February 1, 2006.
- A general survey of storm water awareness will be conducted 2005 and 2008 as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of training.

Activity I-1: Submit and Implement Mapping Schedule for Outfalls (urbanized areas only)

Interim Milestones
- Complete maps of outfalls at stream crossings over or within 300 feet of impaired waters of the state within urbanized areas based on field inspection of top priority outfalls by April 1, 2009.
- Complete maps of outfalls at stream crossings over waters of the state within urbanized areas that are not field screened based on a GIS analysis by April 1, 2006.
- Develop process for notifying consultant of newly constructed outfalls by April 1, 2009.
- Link outfall screening/investigations to the asset management team's inventory database by April 1, 2009.

Measurable Goals
- Map outfalls in MDOT right-of-way in urbanized areas according to the schedule posted in the SWMP.

Activity I-2: Perform Inventory and Dry Weather Screening on Outfalls

Measurable Goals
- Follow illicit discharge procedure (Section 3.3) for 100% of illicit discharges found starting April 1, 2005.
- Update MDEQ of the areas selected for dry weather screening monthly starting November 1, 2004.

Activity I-3: Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken

Interim Milestones
- Add illicit discharge reporting and notification information to Training Module Four by

June 1, 2005.

Measurable Goals

- Maintenance and construction staff with storm water responsibilities will be trained to follow the illicit discharge notification procedure by December 1, 2005.
- Add Illicit Discharge Notification training to existing MDOT employee training database (On-Track) by April 1, 2006.

Activity I-4: Report Updates and Changes to Legal Authority Status

Measurable Goals

- Assess legal authority annually to determine if any updates or changes are necessary.

Activity I-5: Map Known Outfalls (statewide)

Interim Milestones

- Compile survey data by August 1, 2005.
- Develop guideline to define outfalls by August 1, 2005.

Measurable Goals

- Map known outfalls in MDOT right-of-way statewide according to the schedule posted in the SWMP starting April 1, 2005 (see Table 3-2).
- Develop and implement an internal process for making annual map revisions by April 1, 2007.
- Update known outfall maps annually and include in the annual progress report starting April 1, 2008.

3.3.2. Outfall Mapping

Outfall mapping is divided into two categories; 1) outfall mapping in urbanized areas under MDOT's IDEP, and 2) known outfall mapping statewide. A known outfall is defined by existing coordinate data within MDOT's Surveying Services database.

Urbanized Area Outfall Mapping - As part of IDEP, MDOT has identified the location of state roads crossing 305(b)-listed water bodies, within the urbanized areas of the state, based on the 2000 Census. The crossing locations, broken out by region, are shown in the Region-specific chapters of this plan.

Approximately 25% of outfalls at road crossings in urbanized areas will be mapped per year. By April 1, 2009 MDOT will complete the outfall maps for urbanized areas where MDOT roadways cross 305(b)-listed water bodies. Additionally, outfalls located at road crossings in the urbanized areas but not discharging to impaired water bodies will be mapped. Maps will be produced using GIS to spatially identify the location of the outfalls at these road crossings within the urbanized areas. The maps will provide the outfall identification number and the latitude and longitude coordinates. New maps will be provided to the MDEQ each year with the annual progress report beginning in 2005.

Statewide Known Outfall Mapping - A schedule for mapping known outfalls statewide is included in Table 3-2. As part of Activity I-5, MDOT will determine the best mechanism for the continued mapping of all known outfalls.

Table 3-2 Known Outfall Mapping Schedule (statewide)

Activity	Schedule	Responsible Party
Compile survey data.	By August 1, 2005	MDOT Supervising Surveyor
Develop guideline to define outfalls.	By August 1, 2005	Consultant, Outfall Mapping Workgroup
Develop draft known outfall maps.	By December 31, 2005	Consultant
Provide draft known outfall maps to region storm water coordinators.	By February 1, 2006	Consultant
Review draft maps.	By May 1, 2006	Region Storm Water Coordinators and TSC/Region Staff
Revise maps.	By August 1, 2006	Consultant
Provide final known outfall maps to MS4 Committee.	By September 1, 2006	Consultant
Review final maps.	By December 1, 2006	MS4 Committee
Finalize Maps.	By March 1, 2007	Consultant
Develop and implement an internal process for making annual map revisions.	By April 1, 2007	Outfall Mapping Workgroup, Consultant
Update known outfall maps annually and include in the annual progress reports.	Annually starting April 1, 2008	Consultant, MS4 Committee

3.3.3. Conduct IDEP in Urbanized Areas

MDOT will conduct IDEP investigations in urbanized areas at outfalls that discharge to the waters of the state at roads crossing 305(b)-listed water bodies impaired by untreated sewage, bacteria, pathogens, nutrient enrichment, nuisance plant growth, nuisance algal growth, low dissolved oxygen, sediments, oil or grease, fish kills and fish or macro-invertebrate communities rated poor.

Table 3-3 shows the preliminary schedule for conducting IDEP investigations. As IDEP activities continue, MDOT will provide updated field activity schedules to MDEQ to the extent practical. Whenever possible MDOT will provide a minimum of five days notice to the MDEQ District personnel responsible for storm water permit oversight for the MDOT Region in which the work will be conducted prior to conducting IDEP activities in a given Region.

In order to ensure that this task is completed in a timely manner MDOT has hired a consultant to conduct the field investigations and data compilation for the urbanized area road crossings. The consultant will follow the IDEP Protocol Manual included in Appendix G. The MDOT Storm Water Program Manager will provide project oversight and will coordinate enforcement actions through the

Region Storm Water Coordinators if illicit connections and/or discharges are found. Annual progress reports will include the results of the investigations conducted.

As IDEP field work is conducted at each of the crossings, the need for outfall investigations will be determined. If an outfall is identified at a crossing, it will be inventoried. The outfall inventory will include the outfall ID, the physical location and the physical characteristics of the outfall. Each outfall will also be observed to document general information, flow measurements, visual and olfactory observations. If dry weather flow is observed, a water sample will be obtained. The basic analytical tests performed will include surfactants, ammonia, fluoride, hardness and Escherichia coli. Additional analytical tests may be added if specific sources are suspected.

The results of the water quality tests and observations noted in the dry weather screening will be used to determine if follow-up investigation is required. Follow up investigations will involve additional screening and sampling of the outfall and inspection and sampling of strategic manholes within the upstream drainage system. This process will be repeated until the source is isolated within a relatively short reach of the drainage system. Video inspection of enclosed portions of the drainage system may be used to further isolate the probable source. Once the probable source is identified, MDOT will follow Section 9.13 of the Construction Permit Manual "Illicit Discharges into MDOT Storm Water Drainage Systems."

Table 3-3 IDEP Investigation Schedule within Urbanized Area (by Region)

MDOT Region	Urbanized Area	Investigation Schedule (by permit year)	Number of MDOT Road Intersections with		
			Impaired Waterbodies	Impaired Waterbodies (PCB or Mercury Only)	Non-impaired Waterbodies
Bay	Flint	1	0	2	56
	Bay City	1-2	3	2	20
	Saginaw	2-3	4	0	31
	Port Huron	2-3	0	0	25
	Subtotal	**1-3**	**7**	**4**	**107**
Grand	Grand Rapids	2-3	10	6	62
	Holland	3-4	11	0	0
	Muskegon	4-5	6	3	18
	Subtotal	**2-5**	**27**	**9**	**80**
Metro	Ann Arbor	2-3	0	1	7
	Port Huron	2-3	1	1	36
	Detroit	1-5	54	0	241
	Subtotal	**1-5**	**55**	**2**	**309**
Southwest	Benton Harbor	3-4	6	0	19
	Holland	3-4	1	0	0
	Kalamazoo	2-3	3	4	16
	Battle Creek	2	1	3	16
	Michigan City	--	0	0	0
	Elkhart	--	0	0	0
	South Bend	4-5	3	1	4
	Subtotal	**2-5**	**14**	**8**	**55**
University	Lansing	1-3	11	2	19
	Ann Arbor	2-3	7	0	28
	Jackson	1-2	1	3	17
	Monroe	2-3	4	6	34
	Toledo	--	0	0	9
	Detroit	--	0	0	8
	South Lyon-Howell-Brighton	2-3	2	18	0
	Subtotal	**1-3**	**25**	**8**	**136**
Grand Total			**128**	**31**	**687**

3.3.4. Illicit Discharge Reporting and MDEQ Notification System

In the event that MDOT receives reports of illicit connections/discharge from the job-related or general public, the following steps will be taken to identify the source, and to abate and/or eliminate the discharge.

Discharges emanating from the end of a pipe or other conduit into either an enclosed storm sewer or into an open ditch will be treated as described in section 3.3.3 of this plan.

Discharges that do not emanate from the end of a pipe will be investigated to determine the probable source and character of the discharge; extent of the discharge in relation to the nearest storm water inlet or outfall; and potential for release to the waters of the state. With this information, the MDOT Region Storm Water Coordinator will initiate suitable measures to contain the discharge and will coordinate the investigation and identification of the discharged material.

For suspected illicit discharges/connections outside of the MDOT ROW, MDOT will seek permission to investigate from the owner of the suspected illicit discharge/connection. If an illicit discharge/connection is confirmed, MDOT will send up to two escalated "Notice and Order to Remove Encroachment" letters to the non-complying owner before referring enforcement to the local municipality, health department, and the MDEQ Water Division District Supervisor. If the owner does not allow MDOT to investigate outside of the MDOT ROW, MDOT will request MDEQ assistance in gaining access to the necessary properties for investigation.

Further details for removing illicit connections and discharges are addressed in Section 9.13 of the Construction Permit Manual (CPM), including documentation needed for corrective actions taken by the owner, examples of encroachment notices, and responsibility assignments within MDOT. See Figure 3-1 for a flowchart of the Illicit Discharge Removal Process according to Section 9.13 of the CPM.

Any illicit connections that have been identified but remain connected will be identified in the annual report.

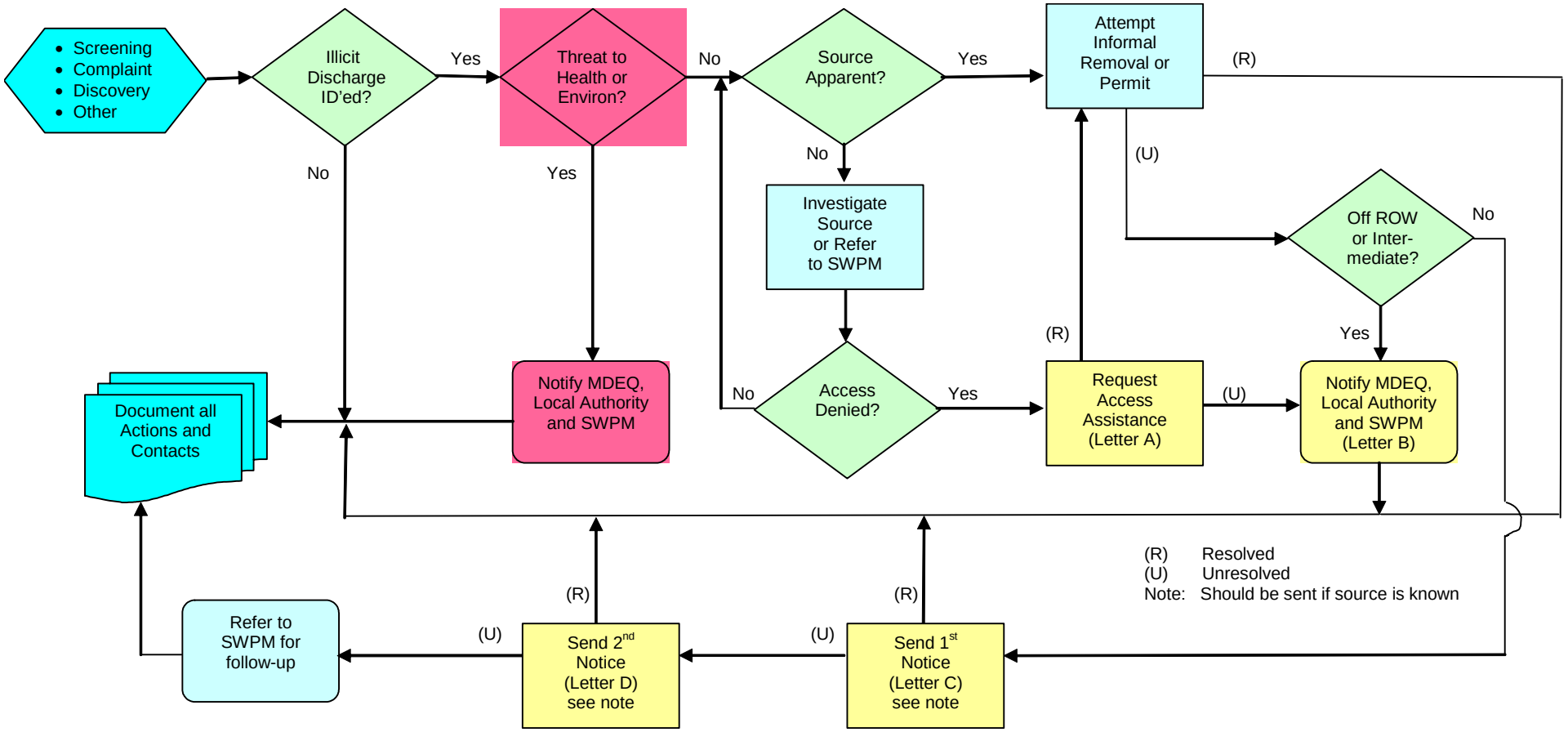
3.3.5. Legal Authority

MDOT's legal authority to regulate and/or prohibit direct discharges to and from its drainage system is described in Chapter 1 of this plan. Updates and changes will be reported as presented in Activity I-4.

3.3.6. Training Materials

MDOT will use training Module Four to train the job-related public about IDEP issues and procedures. The education materials developed for distribution with tap-in/discharge permit applications will also be used for training on IDEP issues.

Figure 3-1 General Illicit or Illegal Discharge Elimination Procedure



Letter A to MDEQ District Water Division requesting assistance with obtaining access to property.
Letter B to MDEQ District Water Division and Local Authorities reporting illicit connection located off MDOT ROW and/or with intermediate Connection.
Letter C to property owner if informal resolution fails. Include Form 2217 Notice and Order to Remove Encroachment.
Letter D to property owner provides second notice of required action.

3.4. POST CONSTRUCTION STORM WATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT PROJECTS

Typical transportation development and redevelopment projects may include construction of new roads, widening of existing roads and road improvements, such as resurfacing. MDOT may also permit new drainage conveyance from developments outside of the MDOT right-of-way. Post construction water quality impacts from transportation land use may include increased sedimentation, pollutant loading, hydrologic flow fluctuation, and increased temperature. This section describes how MDOT will fulfill permit requirements to implement a program to address post construction storm water runoff from MDOT projects and procedures for addressing post construction runoff from projects outside of the MDOT right-of-way.

3.4.1. Measurable Goals and Interim Milestones

The following list summarizes activities and corresponding interim milestones and measurable goals that support the Post Construction Storm Water Management for New Development and Redevelopment Projects aspect of this plan. Details on how these activities and measurable goals will be implemented are presented in Section 3.7.

Activity C-1: Maintenance Requirements for MDOT Permanent Best Management Practices (BMP)s (Post Construction)

Interim Milestones

- Review draft procedure for maintenance of permanent BMPs with appropriate MDOT entities for approval by June 1, 2006.
- Document maintenance procedures and issue staff guidance by August 1, 2006.
- Review Maintenance Performance Guides and update accordingly by October 1, 2006.
- Notify appropriate staff of changes to manuals by December 31, 2006.

Measurable Goals

- Develop and implement procedures for maintaining permanent BMPs not already having a maintenance procedure by December 31, 2006.
- Develop and implement a procedure for maintaining each new permanent BMP within one year of formal adoption of the new permanent BMP as needed beginning December 31, 2006.
- Maintain existing permanent BMPs regularly according to existing MDOT procedures.
- Evaluate ways to improve maintenance practices in urbanized areas if control measures fail to adequately reduce discharge of pollution as needed beginning April 1, 2006.

Activity C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPOs) Having Storm Water Quality Control Programs.

Measurable Goals

- Notify recognized watershed and environmental groups that MDOT is accepting input on special BMP requirements for sensitive streams or portions of streams by June 1, 2005.
- Consider watershed and environmental group input during early coordination of MDOT transportation projects beginning April 1, 2006.

Activity C-3: Procedure to Select and Apply, and Maintain Permanent Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)

Interim Milestones

- Evaluate procedures for selecting, applying and maintaining permanent BMPs. Approved MDOT permanent BMPs are located in the Drainage Manual. Develop a procedure to add new BMPs to the MDOT-approved BMP list by December 31, 2005.
- Review options with appropriate MDOT entities, including development of a funding source based on research from other states by December 31, 2005.
- Make a recommendation for approval by December 31, 2005.
- Lay out a detailed framework for the approved procedure by August 1, 2006.
- Document procedure and issue staff guidance by August 1, 2006.
- Update the existing process in the Drainage Manual and tie the process into the scope verification procedure by December 31, 2006.
- Notify appropriate staff of changes to manuals by December 31, 2006.

Measurable Goals

- Develop procedure for selecting, applying, and maintaining permanent BMPs by December 31, 2005.
- All projects will be evaluated for permanent storm water BMP inclusion during scoping/early design beginning December 31, 2006.

Activity C-4: Procedure to Work With MDEQ for Early Coordination on Initial Design Projects

Interim Milestones

- Develop draft procedure for early coordination on initial design projects by April 1, 2005.
- Meet with MDEQ to further evaluate the early coordination procedure by April 1, 2005.
- Review options with appropriate MDOT and MDEQ entities and make a recommendation for approval. Update manuals and issue staff guidance accordingly by August 1, 2005.

Measurable Goals

- Develop procedure for coordinating with MDEQ on initial design projects by August 1, 2005.
- Train design staff with storm water responsibilities by April 1, 2006.
- All projects discharging to coldwater fisheries, designated Natural Rivers of the state and other water bodies as identified in the early coordination Memorandum of Understanding with MDEQ Water Bureau will seek involvement from appropriate regulatory agencies in the early coordination process by April 1, 2006.

Activity C-5: Review Projects with Storm Water Discharges to Water Bodies with a Promulgated Total Maximum Daily Load (TMDL)

Interim Milestones

- Post interactive mapping system on the MDOT Storm Water Web Site showing MDOT trunklines crossing 305(b)-listed water bodies by June 1, 2005.
- Evaluate various options to review projects discharging to TMDL water bodies by October 1, 2004.
- Review options with appropriate MDOT entities by October 1, 2004.
- Make a recommendation for approval by October 1, 2004.

- Lay out a detailed framework for the approved procedure by June 1, 2006.
- Document procedure and issue staff guidance by June 1, 2006.
- Review manuals and update accordingly by February 1, 2007.
- Notify appropriate staff of changes to manuals by February 1, 2007.

Measurable Goals

- Review all new projects that discharge to waters of the state with a promulgated TMDL beginning April 1, 2005.

Activity C-6: Implement Procedures to Select, Apply and Maintain Permanent Best Management Practices for Storm Water Management Activities (Post-Construction)

Interim Milestones

- Upon having a BMP selection, application, and maintenance procedure in place (see Activity C-3), add procedural information to training modules by August 1, 2007.

Measurable Goals

- Train design staff with storm water responsibilities on applying the permanent BMP procedure by April 1, 2007.
- Implement procedure to select, apply, and maintain permanent BMPs. Ongoing beginning April 1, 2007.
- Develop a procedure to estimate pollutant discharge reduction based on theoretical BMP performance by December 1, 2007.
- BMPs will be modified, replaced, or enhanced if they are not properly installed, maintained, and/or applied for pollutant control as needed beginning April 1, 2007.

Activity C-8: Periodically Update Drainage Manual

Measurable Goals

- Assess the need update the Drainage Manual annually beginning April 1, 2005.
- Update the Drainage Manual. Changes to manual must be approved by the Engineering Operations Committee (EOC) as needed.
- Notify appropriate staff of changes to the manual as needed.

Activity C-11: Review Flow Control Structures

Measurable Goals

- All new flow control structures will be reviewed for inclusion of water quality BMPs, beginning August 1, 2005.
- All new flow control structures will be evaluated for water quality benefit based on the theoretical pollutant removal rate beginning April 1, 2006.
- Maintenance requirements for existing water quality controls having a water quality benefit will be developed to the maximum extent practicable by December 31, 2006.
- Applicable MDOT Staff will be trained to review new and existing flow control structures by April 1, 2007.

3.4.2. Coordination with Metropolitan Planning Organizations (MPOs)
Refer to Section 3.2.6 for information pertaining to coordination with MPOs.

3.4.3. Waterway TMDL Compliance
MDOT has developed an interactive mapping system showing the trunklines and 305(b)-listed water bodies. This system can be accessed through the MDOT Storm Water Management Web Site. MDOT will examine its projects located on impaired water bodies to determine what BMPs are appropriate for consideration in planned construction projects

3.4.4. Standards to Address Right-of-Way (ROW) Projects
Any individual, organization, business or local agency constructing a driveway or tapping into the existing MDOT separate storm water drainage system is required to obtain a permit from MDOT prior to beginning work. MDOT requires that drainage conveyed to its system not exceed pre-development runoff rates. MDOT provides pollution prevention and good housekeeping information to persons applying to use MDOT drainage systems but will not evaluate this contributed runoff for water quality. Authorizations to utilize MDOT drainage systems specifically forbid any discharge that is in violation of water quality standards. Furthermore, MDOT will develop and implement standards to address post construction runoff from projects within the ROW.

3.4.5. Internal Training Modules for Design Engineers
MDOT will educate Design engineers on methods to minimize water quality impacts. Engineers will complete training evaluation surveys in order to evaluate its effectiveness.

3.4.6. BMP Operation and Maintenance for New and Re-Development Projects
MDOT's Maintenance Performance Guides identify current operation and maintenance requirements. MDOT will review and update the Maintenance Performance Guides as appropriate for BMPs installed on MDOT projects. Maintenance considerations will be taken into account during BMP selection, and Maintenance staff will be advised of the installation of new BMPs.

3.4.7. Review of BMPs During Initial Design
MDOT will develop a process to identify priority projects on which to allow MDEQ and other regulatory agencies, as applicable, to review preliminary design plans and provide input on the type and placement of BMPs.

3.5. CONSTRUCTION STORM WATER RUNOFF CONTROL

Control of soil erosion and sedimentation is an integral part of MDOT's construction and maintenance program. The soil erosion and sedimentation program involves two major components:

- MDOT implements soil erosion and sedimentation control procedures as an Authorized Public Agency (APA) under Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended (NREPA).
- MDOT follows R 323.2101 - 323.2192, Wastewater Discharge Permits, of the Michigan Administrative Code as mandated by Part 31, Water Resources Protection**,** of NREPA.

The following discussion summarizes the activities MDOT will continue to conduct or will undertake to fulfill the Permit requirements.

3.5.1. Measurable Goals and Interim Milestones

The following list summarizes activities, corresponding interim milestones and measurable goals that support the Soil Erosion and Sedimentation Control (SESC) Plan. Details on how these activities and measurable goals will be implemented are included in Section 3.7.

Activity T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31.

Measurable Goals

- MDOT Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement will receive ongoing NPDES training.
- MDOT Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement will be certified as Storm Water Operators as required under Part 31 by April 1, 2006.
- Add NPDES training to MDOT Performance Excellence Division tracking system (On-Track) by April 1, 2006.

Activity I-3: Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken

Interim Milestones

- Add illicit discharge reporting and notification information to Training Module Four by June 1, 2005.

Measurable Goals

- Maintenance and construction staff with storm water responsibilities will be trained to follow the illicit discharge notification procedure by December 1, 2005.
- Add Illicit Discharge Notification training to existing MDOT employee training database (On-Track) by April 1, 2006.

Activity C-7: Internal Quality Assurance/Quality Control (QA/QC) Protocol for Construction Storm Water Control

Interim Milestones

- Develop draft QA/QC protocol by December 31, 2005.

Measurable Goals

- Develop a QA/QC protocol for construction storm water control by May 1, 2006.
- Inspect all sites disturbing at least one acre per the SESC Manual.

Activity C-8: Periodically Update Drainage Manual

Measurable Goals

- Assess the need update the Drainage Manual. Annually beginning April 1, 2005.
- Update the Drainage Manual. Changes to manual must be approved by the Engineering Operations Committee (EOC) as needed.
- Notify appropriate staff of changes to the manual as needed.

3.5.2. Qualifying Local and State Erosion and Sedimentation Controls

Pursuant to Part 91 of NREPA, MDOT has established procedures for soil erosion and sedimentation control, as detailed in the MDOT SESC Manual. Targeted MDOT staff are trained and certified as required under Part 91 of NREPA. MDOT utilizes Certified Storm Water Operators as required under Part 31 of NREPA.

For non-MDOT projects, MDOT requires all parties who propose driveway construction adjacent to MDOT's ROW to obtain a permit from MDOT. This permit process involves a review by MDOT of the proposed drainage for the site and requires that the runoff from the site not exceed the pre-development peak discharge rate. These non-MDOT projects within the MDOT ROW may need individual SESC permits from the County Enforcing Agency (CEA) or Municipal Enforcing Agency (MEA).

In addition to subsection 107.15 "Compliance with Laws; Environmental Protection" in the MDOT Standard Specifications for Construction, MDOT used the pre-construction meeting as another opportunity to discuss the contractors' responsibility for obtaining all proper permits and meeting all of the appropriate soil erosion and sedimentation control requirements for their project both inside and outside of the MDOT ROW. Contractors are referred to the SESC Manual, and applicable sections of the Construction Manual for more information. The MDOT Part 91 Inspector(s) assigned to the project are identified at the preconstruction meeting.

3.5.3. Notification of MDEQ of Non-Compliance

Refer to Section 1.7.2, Notification Requirements, for details on notifying MDEQ of Non-Compliance.

3.5.4. Procedure to Receive and Consider Public Complaints

The approved MDOT SESC Manual, Chapter 4, includes procedures to receive and consider public complaints. The MDOT Public Web site includes Region contact information. The general public may contact the MDEQ or an MDOT Region Office or Transportation Service Center (TSC) with a complaint. Complaints are referred to the Delivery Engineer in charge of the construction activity.

The Delivery Engineer, or appointed representative (generally the Part 91 Inspector or the Certified Storm Water Operator), keeps a log file of the complaints received. All complaints receive appropriate attention and consideration. Corrective actions are implemented as needed.

3.5.5. Quality Assurance / Quality Control (QA/QC) Protocol

MDOT is developing QA/QC protocol for the SESC program as part of Activity C-7. It is anticipated that the SESC program will benefit from recommendations as a result of the QA/QC protocol.

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3.6. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MDOT OPERATIONS

This section describes how MDOT will revise and enhance the operation and maintenance of BMPs. The ultimate goal of the program is to prevent or reduce pollutant runoff from MDOT operations and properties to the MEP.

MDOT conducts environmental audits to verify facility compliance with environmental requirements and department policies. The audits are conducted to meet a series of objectives which include reviewing facility environmental performance and compliance with past recommendations and requirements, improving awareness and education of facility personnel on these issues and reviewing other possible environmental issues. These audits cover federal, state, and local environmental laws relevant to MDOT which are included in the following list.

- State Act 245, of 1929, as amended (Water Resources Commission Act), (now Part 31 of Act 451).
- The Federal Clean Water Act.
- Federal and State Clean Air Acts.
- State Act 64 of 1979, as amended (now Part 111 of Act 451) (known as the Michigan Hazardous Waste Management Act).
- The Resource Conservation and Recovery Act (RCRA), Hazardous and Solid Waste Amendments (HSWA), and Superfund Amendments and Reauthorization Act (SARA).
- The State Solid Waste Act, Act 641 of 1978 (now Part of Michigan's Solid Waste Management Act).
- The Michigan Liquid Industrial Waste Haulers Act, Act 136 of 1969, as amended (now Part 121 of Act 451).
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and similar State Act 307 of 1982, as amended (now Part 201 of Act 451), regarding responsibility for uncontrolled release of a hazardous substance to the environment and necessary cleanup.
- OSHA/MIOSHA Flammable/Combustible Hazardous Materials Containment & Storage Regulations, or other Department of Labor regulations confined to dealing with hazardous chemicals, materials, substances, and wastes.
- The Federal Insecticide, Fungicide, Rodenticide Act (FIFRA).
- The Toxic Substance Control Act (TSCA) (PCB's, Asbestos, etc), State Act 60 of 1976 (known as the PCB Act).
- State Fire Marshal Regulations (flammable/combustible hazardous materials, Underground Petroleum Storage Tanks).
- Other Federal, State, or Local requirements relating to hazardous or polluting materials, hazardous substances, hazardous wastes, etc., of relevance to an MDOT facility (or, as in the case of UPTRAN type facilities, a bus or railroad facility on MDOT property).

The following subsections summarize activities MDOT will carry out to fulfill the permit requirements.

3.6.1. Measurable Goals and Interim Milestones

The following list summarizes activities, corresponding interim milestones and measurable goals that support Pollution Prevention/Good Housekeeping for MDOT Operations. Details on how these activities and measurable goals will be implemented are presented in Section 3.7.

Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

Measurable Goals

- The MDOT Storm Water Public Web Site will be updated quarterly with the most recent MDOT storm water information and news.
- A link to the MDOT Storm Water Public Web Site will be added to the MDOT Public Web Site home page by April 1, 2006.
- A Storm water-related quiz/comment form will be developed for inclusion on the MDOT Storm Water Web Site by December 31, 2005.
- A general survey of storm water awareness will be conducted in 2005 and 2008 as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of the web site.

Activity T-1: Present Applicable Training Modules to the Job-Related Public

Interim Milestones

- Determine target audiences for the storm water modules by June 1, 2005.
- Add storm water awareness training to existing MDOT training database (On-Track) to track individual employee training. Include training modules as part of select employee performance evaluations in 2006.
- Provide ongoing train-the-trainer preparation for presenters.
- Ensure modules are regularly delivered during staff meetings and other meetings as warranted.
- Develop training evaluation surveys by July 1, 2005.

Measurable Goals

- Review and update modules annually starting October 1, 2005.
- Train Region/TSC Staff with storm water-related responsibilities on the four storm water modules by April 1, 2009
- Encourage trainee to complete training evaluation at the close of each training session starting August 1, 2005.
- Provide modules to contract agencies and contracting associations with a request to use the modules. Provide information through the Michigan Local Technical Assistance Program (LTAP) by February 1, 2006.
- A general survey of storm water awareness will be conducted in 2005 and 2008 as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of training.

Activity T-2: Certify MDOT's Staff for Pesticide/Fertilizer Application

Measurable Goals

- MDOT Staff applying pesticides will be regularly trained and certified annually per Michigan Department of Agriculture requirements.
- MDOT Staff or Contract Agencies will regularly follow MDOT's Standard Specifications for Construction Section 816 and 917 for fertilizer application practices. Ongoing
- Evaluate application practices and pollution prevention measures, and recommend and formalize any changes if appropriate annually starting April 1, 2006.

Activity T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31.

Measurable Goals

- MDOT Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement will receive ongoing NPDES training.
- MDOT Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement will be certified as Storm Water Operators as Required under Part 31 by April 1, 2006.
- Add NPDES training to MDOT Performance Excellence Division tracking system (On-Track) by April 1, 2006.

Activity C-1: Maintenance Requirements for MDOT Permanent Best Management Practices (BMP)s (Post Construction)

Interim Milestones

- Review draft procedure for maintenance of permanent BMPs with appropriate MDOT entities for approval by June 1, 2006.
- Document maintenance procedures and issue staff guidance by August 1, 2006.
- Review Maintenance Performance Guides and update accordingly by October 1, 2006.
- Notify appropriate staff of changes to manuals by December 31, 2006.

Measurable Goals

- Develop and implement procedures for maintaining permanent BMPs not already having a maintenance procedure by December 31, 2006.
- Develop and implement a procedure for maintaining each new permanent BMP within one year of formal adoption of the new permanent BMP as needed beginning December 31, 2006.
- Maintain existing permanent BMPs according to existing MDOT procedures ongoing.
- Evaluate ways to improve maintenance practices in urbanized areas if control measures fail to adequately reduce discharge of pollution as needed beginning April 1, 2006.

Activity C-3: Procedure to Select and Apply, and Maintain Permanent Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)

Interim Milestones

- Evaluate procedures for selecting, applying, and maintaining permanent BMPs. Approved MDOT permanent BMPs are located in the Drainage Manual. Develop a procedure to add new BMPs to the MDOT-approved BMP list by December 31, 2005.
- Review options with appropriate MDOT entities including development of a funding source based on research from other states by December 31, 2005.
- Make a recommendation for approval by December 31, 2005.
- Lay out a detailed framework for the approved procedure by August 1, 2006.
- Document procedure and issue staff guidance by August 1, 2006.
- Update the existing process in the Drainage Manual and tie the process into the scope verification procedure by December 31, 2006.

- Notify appropriate staff of changes to manuals by December 31, 2006.

Measurable Goals

- Develop procedure for selecting, applying, and maintaining permanent BMPs by December 31, 2005.
- All projects will be evaluated for permanent storm water BMP inclusion during scoping/early design beginning December 31, 2006.

Activity C-6: Implement Procedures to Select, Apply and Maintain Permanent Best Management Practices for Storm Water Management Activities (Post-Construction)

Interim Milestones

- Upon having a BMP selection, application, and maintenance procedure in place (see Activity C-3), add procedural information to training modules by August 1, 2007.

Measurable Goals

- Train design staff with storm water responsibilities on applying the permanent BMP procedure by April 1, 2007.
- Implement procedure to select, apply, and maintain permanent BMPs ongoing beginning April 1, 2007,
- Develop a procedure to estimate pollutant discharge reduction based on theoretical BMP performance by December 1, 2007.
- BMPs will be modified, replaced, or enhanced if they are not properly installed, maintained, and/or applied for pollutant control as needed beginning April 1, 2007.

Activity C-8: Periodically Update Drainage Manual

Measurable Goals

- Assess the need update the Drainage Manual annually beginning April 1, 2005.
- Update the Drainage Manual. Changes to manual must be approved by the Engineering Operations Committee (EOC) as needed.
- Notify appropriate staff of changes to the manual as needed.

Activity C-9: Documentation and Tracking of Road Maintenance Activities

Measurable Goals

- Investigate how to track contracted road maintenance activities using a pilot-study with a county by April 1, 2007. In the interim, discuss maintenance activities in terms of hours of labor.
- 20,000 hours of street-sweeping will be completed annually.
- 23,000 hours of catch-basin cleaning will be completed annually.

Activity C-10: Procedure for Outfall Labeling

Interim Milestones

- Assess various procedures for labeling outfalls by January 31, 2005.
- Review procedures with appropriate MDOT entities and make a recommendation for approval by January 31, 2005.

- Develop a special provision for labeling by April 1, 2005.
- Document procedure and issue staff guidance by April 1, 2005.
- Review and update manuals accordingly by April 1, 2005.
- Notify appropriate staff of changes to manuals by April 1, 2005.

Measurable Goals

- Develop procedure for labeling all new outfall structures statewide by April 1, 2005.
- All new outfall structures will be labeled and maintained statewide starting April 1, 2006.

Activity C-11: Review Flow Control Structures

Measurable Goals

- All new flow control structures will be reviewed for inclusion of water quality BMPs, beginning August 1, 2005.
- All new flow control structures will be evaluated for water quality benefit based on the theoretical pollutant removal rate beginning April 1, 2006.
- Maintenance requirements for existing water quality controls having a water quality benefit will be developed to the maximum extent practicable by December 31, 2006.
- Applicable MDOT Staff will be trained to review new and existing flow control structures by April 1, 2007.

Activity C-12: Audit the Pollution Incidence Prevention Plan (PIPP) Requirements

Measurable Goals

- Conduct an audit of the PIPP requirements every three years beginning April 2006.
- Follow-up on any delinquent plan requirements and revise appropriately as needed.
- Formally accept the changes made to the PIPP as needed.

3.6.2. MDOT Manuals

The MDOT Drainage Manual describes policies and procedures that apply to the design of drainage facilities and storm water management plan BMPs. The manual provides a tool for MDOT designers and is a required resource for design consultants and contractors. The BMPs referenced in the Drainage Manual and the SESC Manual provides guidance on the design and implementation of the BMPs. In addition, the Maintenance Performance Guides describe MDOT's procedures for operating and maintaining the various facilities.

3.6.3. Structural BMPs

Structural BMPs are physical controls designed to remove pollutants from runoff. They may limit the rate of runoff from MDOT right-of-way and other facilities. MDOT performed an extensive review of BMPs and developed an approved list of structural BMPs for use on projects (Appendix D). Regular inspection and maintenance of BMPs will maintain the effectiveness and structural integrity of the BMPs. Neglected structural BMPs may contribute to pollutant loading if left unchecked. The inspection and maintenance requirements of each BMP is determined in accordance with guidelines contained in the Drainage Manual and as described in the Maintenance Performance Guides.

There are many different structural control options to use during and after construction to address

water quality and quantity issues. Therefore, it is important that planning and construction goals are established to ensure that the appropriate structural controls are being used and that adequate funding sources are available for the BMPs.

Waste materials resulting from operation and maintenance activities, such as dredge spoil, accumulated sediments, floatables, and other debris that is removed from MDOT's drainage system will be disposed of at an appropriate site. Procedures are detailed in the MDOT Maintenance Performance Guides and special provisions.

3.6.4. Roadways

MDOT constructs, operates, and maintains its streets, roads, highways, parking lots and other large paved surfaces in a manner to reduce the discharge of pollutants into the drainage system.

MDOT conducts maintenance activities that help prevent storm water pollution, such as street cleaning, catch basin maintenance programs, ditch clean out, culvert and underdrain maintenance, Adopt-a-Highway litter collection, mowing, brush control and bank stabilization.

Depending on the location around the state, local public transportation agencies working under contract for MDOT will inspect BMPs on a regular basis. At this time, counties and cities do not keep records detailing the inspection and maintenance work that is performed. MDOT is exploring options for collecting this information from the contract agencies within the constraints of the existing multi-year contracts.

<u>De-icing</u>

MDOT uses de-icing salts when conditions warrant, employing a system of calibrated salt dispensers to minimize the amount of salt applied. Information pertinent to de-icing activities is found in the MDOT "Sensible Salting Handbook." The handbook is a guide for calibrating equipment; salt/sand application rates depending on temperature; and roadway prioritization. Salting guidelines are distributed to contract agencies as well as MDOT employees.

It should be noted that sand left on the road due to winter operations is swept up and disposed of in a type II landfill.

The "maximum calculated amount" is 450 pounds per lane mile of salt used per application according to Maintenance Performance Guide 14100. This number reflects the maximum amount that can be placed each time the truck is in operation. In areas where pretreatment methods are being, used the application rate can be reduced by 25% to 40% depending on the temperature and type of storm. Additionally, MDOT is exploring the use of Global Positioning Systems (GPS) to monitor routine highway maintenance activities. Because storms vary significantly as far as duration, snow type, temperature and traffic volumes, there is no way to compare salt usage from season to season or storm to storm for any given location.

Newly constructed salt sheds are built so that all loading and dumping of salt is done inside the shed. The few remaining older sheds that do not have the capability of loading inside have sloped approaches and secondary containment to prevent salt from leaching into the storm water. The older sheds will be replaced with the newer style as soon as possible.

MDOT conducted a literature review comparing various de-icing alternatives and found that salt is as

cost-effective and is no more environmentally harmful than any of the other alternatives reviewed.

3.6.5. Separate Storm Sewer Outfall Labeling

MDOT will require permanent identification of all outfall structures that are installed or constructed after April 1, 2006. This requirement will be specified in all construction proposals that include outfalls to the waters of the state. MDOT will phase in the labeling requirement over 2005 and will track the location and size of outfalls installed without labels during this time.

3.6.6. Review of Flow Control Projects

All new flow control structures are being reviewed on a project by project basis for inclusion of water quality BMPs. Maintenance requirements for existing water quality controls having a water quality benefit will be developed to the maximum extent practicable.

3.6.7. Fleet Maintenance

MDOT ensures that proper precautions are taken so that vehicle maintenance activities do not impact storm water runoff quality. Pollution Incidence Prevention Plans (PIPP) have been prepared and implemented for all MDOT facilities that conduct vehicle maintenance activities and/or provide storage. Pollution prevention planning is required by Michigan administrative rules of Part 5, Spillage of Oil and Polluting Materials, pursuant to Part 31 of NREPA. Furthermore, many of MDOT's contract agencies participate in the PIPP program due to the fact that it is a requirement if they seek reimbursement for environmental remediation projects at their facilities. Representative examples of PIPPs prepared for a MDOT facility and by one of the counties under contract to provide maintenance services for the department are included in Appendix C. To help prevent MDOT's vehicles from leaking fluids, an annual maintenance tune-up is conducted.

All garage wastes are disposed of through licensed haulers and at a licensed disposal facility. Copies of manifests and bills of loading are kept on site for a minimum of three years.

3.6.8. Pesticides and Fertilizers

Pesticides are applied on MDOT right-of-way in accordance with Public Act 451, Regulations 636 and 637 and all other applicable state and federal regulations. These regulations require that all applicators must be registered or certified to apply pesticides in the State of Michigan. MDOT requires all applicators to be certified if making roadside, guardrail, and brush pesticide applications on MDOT right-of-way. These applicators consist of MDOT, County and /or contractor personnel.

MDOT conducts a two day training session each year to keep all certified MDOT applicators up to date on new regulations, procedures, and equipment and product changes. This training is approved and sanctioned as well as attended by the Michigan Department of Agriculture (MDA). MDA also issues recertification credits for this training, which are required to maintain/renew the applicators certification every three years.

Additionally, MDOT has compiled and produced an extensive pesticide applicators manual as a reference tool. This manual lists all pertinent information as it relates to MDOT spray operations/procedures (i.e. laws/regulations, drift control plan, calibration, mixing/loading/storage operations, application rates/timing, limitations when working in protected areas/stream crossings/wildflower preservation areas, product labels and MSDS sheets, etc). Each certified applicator has a copy of the manual.

MDOT's policy has always been to take an integrated pest management (IPM) approach by considering all available tactics or strategies to manage pest. By doing so, MDOT achieves efficient and economical results with the least disruption to the environment. MDOT certified applicators are extremely well trained and perform their spraying duties with the utmost sensitivity to the environment.

Fertilizer application is not currently regulated by the government. The application of fertilizer on MDOT right-of-way is typically done on construction projects. These fertilizer applications are completed in accordance with MDOT's Standard Specifications for Construction, Section 816 and Section 917. There are very limited fertilizer applications made by MDOT Maintenance staff.

3.6.9. Staff Training

Training of the job-related public in pollution prevention and good housekeeping for MDOT operations is an ongoing activity. Opportunities to enhance the available training will be evaluated and adopted as appropriate.

3.7 ACTIVITIES REFERENCED IN THE SWMP

Each of the activities listed in Section 3.1 are described in this section.

Activity E-1: Maintain and Use Lansing Information Center

Affected Party: MDOT Employees involved with the storm water plan.

Objective: To maintain a library of storm water-related materials for training and educating the job-related public, including video tapes, reference manuals and publications.

Description: A library of informational materials compiled to support activities performed for the MDOT Storm Water Management Plan. The Lansing Information Center is open and located in the MDOT Library housed at the Murray D. Van Wagoner Building, 425 W. Ottawa Street, Lansing MI 48909. Materials can be checked out by contacting the Aquatic Resource Specialist within the Environmental Section or the MDOT librarian.

Annual Reporting: Track the material usage, and the source and number of articles in library.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity T-1 - Training Modules
Activity T-3 - Part 91 and Part 31 Training
Activity T-4 - Storm Water Knowledge Survey

Permit Requirement: Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement program.

No.	Measurable Goals	Schedule	Responsible
1	The library of storm water-related materials will be updated quarterly with the most recent guidance, research, publications, and training materials.	Quarterly	Aquatic Resource Specialist from the Environmental Section or designated person
2	A list of storm water-related materials will be updated quarterly on the MDOT Storm Water Public Web Site.	Starting December 31,2006	
3	Quarterly notice s will be made in the Monday Memo to advertise the storm water-related library material.	By August 1, 2005	
4	The library of storm water-related materials will be moved to a more prominent location.	By August 1, 2005	
5	A system will be developed to track the checkout of library materials.	By August 1, 2005	
6	A general survey of storm water awareness will be conducted as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of the library.	Survey conducted in 2005 and 2008.	Storm Water Program Manager

Activity E-2: Publish Articles in MDOT Publications

Affected Party: Job-Related Public

Objective: To educate the job-related public on watershed stewardship, the MDOT storm water program, illicit discharges, construction and post-construction BMPs, and/or new program announcements.

Description: Prepare storm water program articles for publication using internal MDOT publications. The articles are to provide information about the MDOT storm water program in a manner to gain understanding and support for implementing the program by the job-related public.

Annual Reporting: Track topics and number of articles circulated.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity E-1 - Lansing Information Center
Activity E-3 - MDOT Public Web Site
Activity T-4 - Storm Water Knowledge Survey

Permit Requirement: Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement program.

No.	Measurable Goals	Schedule	Responsible
1	Develop and publish storm water-related articles in a Region-based newsletter, Adopt-A-Highway newsletter, Monday Memo or other appropriate newsletters at least quarterly throughout the Permit cycle. Contract agencies will be included on the newsletter distribution list.	Quarterly	Storm Water Program Manager, Consultant, MS4 Team, and MDOT Publications Staff.
2	Provide storm water information to contract agencies through the Michigan Local Technical Assistance Program (LTAP).	By February 1, 2006	Maintenance Environmental Team (MET)
3	A general survey of storm water awareness will be conducted as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of article publication.	Survey conducted in 2005 and 2008.	Storm Water Program Manager

Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

Affected Party: Job-Related Public and Traveling Public

Objective: To educate the job-related and traveling public on MDOT's watershed stewardship practices and promote these practices on all projects where feasible.

Description: MDOT developed a public information Web site about the Phase II storm water program. The Web site provides general information about watershed stewardship practices as well as links to pertinent storm water-related materials. This information will be maintained and monitored to report Web site usage.

Annual Reporting: Track internal and external Web site hits and the number of SWMP document downloads on the MDOT Storm Water Public Web Site.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity E-1 - Lansing Information Center
Activity E-2 - Publish Articles in MDOT Publications
Activity T-4 - Storm Water Knowledge Survey

Permit Requirement: Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement program.
Part I.B.6: Ensure MDOT employees maintain and follow proper pollution prevention controls.

No.	Measurable Goals	Schedule	Responsible
1	The MDOT Storm Water Public Web Site will be updated quarterly with the most recent MDOT storm water information and news.	Quarterly	Consultant, MS4 Team, and MDOT Information and Technology Manager.
2	A link to the MDOT Storm Water Public Web Site will be added to the MDOT Public Web Site home page.	By April 1, 2006	Storm Water Program Manager
3	A storm water-related quiz/comment form will be developed for inclusion on the MDOT Storm Water Public Web Site.	By December 31, 2005	Consultant, Storm Water Program Manager, Technology Manager
4	A general survey of storm water awareness will be conducted as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of the Web site.	Survey conducted in 2005 and 2008.	Storm Water Program Manager

Activity E-4: Provide Education Materials along with Tap-In/Discharge Permit Applications

Affected Party: Applicants obtaining a Discharge/Tap-In Permit and Region/TSC Staff involved with reviewing and approving permits.

Objectives: To inform applicants of acceptable discharges into the MDOT drainage system, and also of the potential negative impacts to water quality from unacceptable or illegal discharges and ways to mitigate these impacts. To inform MDOT permitting and utilities staff statewide that this education material will be distributed with the tap-in/discharge permit and that educating applicants is important to protecting water quality.

Description: Prepared education materials for typical development activities connecting to MDOT facilities. Established and implemented procedures for distributing these materials.

Annual Reporting: Track quantity of permit applications/educational materials distributed.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity I-4 - Updates to Legal Authority

Permit Requirement: Part I.B.1.c: Provide pollutant prevention information to applicants that apply to tap into the MDOT drainage system.
Part I.B.1.c: Train MDOT employees to provide pollution prevention education during application process.

No.	Interim Milestones	Schedule	Responsible
1	Develop educational material to be included in the tap-in/discharge permit application.	By April 1, 2005	Tap-in/ Discharge Permit Workgroup
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Distribute education materials to 100% of tap-in/discharge permit applicants.	Ongoing beginning April 1, 2005	MDOT Permitting Staff
2	Instruct MDOT staff to distribute materials as instructed in the revised Construction Permit Manual (CPM).	By June 1, 2005	
3	Review the adequacy of the procedure for distributing materials.	Every five years	

Activity E-5: Notify and Invite Public to Review and Comment on the Storm Water Management Plan (SWMP)

Affected Party: Traveling Public, Job-Related Public, NPDES Watershed Permit Stakeholders, Local Stream / Watershed Protection Groups

Objective: To obtain comments, statewide, from the public on the SWMP.

Description: Establish procedures for the public notice and distribution of the draft SWMP. Provide at least 30 days for public review and comment.

Annual Reporting: Track public comments. Track number of downloads of the draft SWMP from Web site

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity E-3 - MDOT Public Web Site

Permit Requirement: Part I.B.2: Encourage public input.
Part I.B.2.a: Notify public of when and where preliminary and final SWMP are available for review.
Part I.B.2.b: Input actively sought from stakeholder groups and local organizations for comment on SWMP.

No.	Measurable Goals	Schedule	Responsible
1	Post the Draft SWMP on MDOT's Storm Water Web Site.	By November 24, 2004	Consultant and MDOT MS4 Team
2	Distribute copies of the draft SWMP to all Transportation Service Centers (TSCs) and Region Offices.		
3	Distribute letters announcing the review and comment period for the draft SWMP to over 200 local watershed groups. (Appendix E)		
4	Report and respond to the number of people/groups who comment on the SWMP.	By April 1, 2005	
5	Post the Final SWMP on MDOT's Storm Water Web Site.	By April 1, 2005	
6	Notify public groups who commented on the Draft SWMP that the Final SWMP is available on the MDOT Storm Water Web Site.	By April 1, 2005	

Activity E-6: Determine Partnership Potential with MDEQ Statewide Public Education Program

Affected Party: Traveling Public

Objective: To evaluate the potential for MDOT to educate the public through the MDEQ statewide public education program.

Description: As an alternative to performing a stand-alone education program for the traveling public, MDOT will evaluate providing financial support to a statewide campaign being developed by MDEQ. If MDOT decides not to support the MDEQ campaign, they would be required to perform their own program, in which case, a program plan will be developed and submitted to MDEQ for approval.

Annual Reporting: MDOT will decide whether or not to participate in statewide program.

Related Activities: Activity A-1 - Program Assessment and Reporting

Permit Requirement: Part I.B.1.b: If the MDEQ develops a statewide public education program, MDOT may either seek a partnership agreement with the MDEQ for implementation of Part I.B.1.b. of this Permit, or develop and implement a program to increase awareness and seek positive public behavior.

No.	Measurable Goals	Schedule	Responsible
1	Attend meetings with MDEQ statewide education committee and MDEQ decision makers.	Once MDEQ finalizes their statewide public education program, MDOT will decide within 6 months whether or not to participate. A public education plan will be developed within 12 months if MDOT chooses not to participate.	Consultant and MDOT Storm water Program Manager
2	Obtain statewide campaign materials including cost to participate and evaluate the potential value of entering into a partnership with MDEQ.		MDOT MS4 Team
3	Develop participation agreement with MDEQ or develop an MDOT Public Education Plan (PEP).		

Activity T-1: Present Applicable Training Modules to the Job-Related Public

Target Audience: Lansing and Region/TSC Staff and contract agencies

Objective: Educate the Job-Related Public about the Storm Water Management Program.

Description: Use the four 15 minute MDOT storm water program training modules to train Lansing and Region/TSC staff and contract agencies.

- Module One: Introduction to SW Management
- Module Two: Best Management Practices
- Module Three: Maintenance Considerations
- Module Four: Illicit Discharge & Maintenance

Annual Reporting: Track training attendance. Track contract agencies receiving modules.

Related Activities: Activity T-4 - storm water survey; Activity I-3 - illicit discharge notification; Activity T-3 - Part 91 and Part 31 training

Permit Requirement: Part I.B.1.a(1), Part I.B.1.a(2), Part I.B.1.a(3), Part I.B.4.b(2), Part I.B.6

No.	Interim Milestones	Schedule	Responsible
1	Determine target audiences for the storm water modules.	By June 1, 2005	MS4 Team Members
2	Add stormwater awareness training to existing MDOT training database (On-Track) to track individual employee training. Include training modules as part of select employee performance evaluations in 2006.	During 2006	Consultant and the MDOT Storm Water Program Manager
3	Provide train-the-trainer preparation for presenters.	Ongoing	MS4 Team Members
4	Ensure modules are delivered during staff meetings and other meetings as warranted.	Ongoing	MS4 Team Members
5	Develop training evaluation surveys.	July 1, 2005	Consultant
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Review and update modules.	Annually starting October 1, 2005	Consultant
2	Train Region/TSC Staff with storm water-related responsibilities on the four storm water modules.	By April 1, 2009	MS4 Team Members
3	Encourage trainees to complete training evaluation at the close of each training session.	Starting August 1, 2005	MS4 Team Members
4	Provide modules to contract agencies and contracting associations with a request to use the modules. Provide information through the Michigan Local Technical Assistance Program (LTAP).	By February 1, 2006	Maintenance Environmental Team (MET)
5	A general survey of storm water awareness will be conducted as described in Activity T-4. The survey will be designed to assess the educational program as a whole including the effectiveness of training.	Survey conducted in 2005 and 2008.	Storm Water Program Manager

Activity T-2: Certify MDOT's Staff for Pesticide/Fertilizer Application

Target Audience: MDOT Maintenance Staff and Contract Agencies

Objective: To reduce pollution entering waters of the state, statewide, that originates from pesticide/fertilizer application.

Description: The existing training and certification program for pesticide/fertilizer applications will be evaluated and tracked to document performance and to prevent storm water pollution. Results will be used to recommend changes if appropriate.

Annual Reporting:

- Track the number of individuals attending annual pesticide training.
- Track number of MDOT personnel certified as a pesticide applicator.
- Summarize evaluation and review of programs, policies, procedures and information.
- Report changes to fertilizer specifications.

Related Activities: Activity A-1 - Program Assessment and Reporting

Permit Requirement: Part I.B.6.f: Minimize the discharge of pollutants related to storage, handling and use of herbicides/fertilizers. Provide employee training for herbicides/fertilizers to protect water quality.

No.	Measurable Goals	Schedule	Responsible
1	MDOT Staff applying pesticides will be trained and certified annually per Michigan Department of Agriculture requirements.	Ongoing	MDOT Maintenance Staff
2	MDOT Staff or Contract Agencies will follow MDOT's Standard Specifications for Construction, Sections 816 and 917 for fertilizer application practices.	Ongoing	MDOT Maintenance Staff
3	Evaluate application practices and pollution prevention measures and recommend and formalize any changes if appropriate.	Annually starting April 1, 2006	Maintenance Environmental Team, MDOT Maintenance Staff

Activity T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31

Affected Party: MDOT Maintenance Supervisors and Coordinators

Objective: To reduce non-storm water discharges to the MEP to receiving water bodies.

Description: The existing MDEQ sponsored Soil Erosion and Sedimentation Control (SESC) training program will be attended by appropriate maintenance staff. Successful completion of the training and certification of storm water operators will be documented.

Annual Reporting: Total number of staff trained and certified for compliance with Part 31 and Part 91 requirements.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity C-7 - QA/QC Protocol for Construction Storm Water Control

Permit Requirement: Part I.B.5.a: MDOT shall meet the following requirements on MDOT construction sites statewide, but may rely on the MDOT SESC Plan and Michigan's Permit by Rule to the extent that those controls meet the requirements: 1) Implement soil erosion and sedimentation controls, 2) Control demolition and construction waste materials at construction sites, 3) Consider potential water quality impacts during road construction plan reviews, and 4) Inspect sites to assure that pollution control measures are appropriate and functional.
Part I.B.6: The program shall include employee and contractor training to prevent and reduce storm water pollution through proper implementation and maintenance of BMPs. The program may be developed and implemented using BMP guidance and training materials that are available from federal, state or local agencies.

No.	Measurable Goals	Schedule	Responsible
1	MDOT Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement will receive NPDES training.	Ongoing	MDOT Maintenance Supervisors and Coordinators
2	MDOT Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement will be certified as Storm Water Operators as Required under Part 31.	By April 1, 2006	
3	Add NPDES training to MDOT Performance Excellence Division tracking system (On-Track).	By April 1, 2006	MDOT Storm Water Program Manager

Activity T-4: Survey MDOT Staff on Storm Water Knowledge

Affected Party: Representative MDOT Staff

Objective: To determine the current level of storm water knowledge for a statistical mix of administrative, technical, professional, and engineering staff to evaluate the effectiveness of the education program .

Annual Reporting:

- Report the survey results.
- Report the results of subsequent survey and compare.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity E-1 - Lansing Information Center
Activity E-2 - Publish Articles in MDOT Publications
Activity E-3 - MDOT Public Web Site
Activity T-1 - Training Modules for Job-Related Public

Permit Requirement: Part I.B: The MAXIMUM EXTENT PRACTICABLE requirement shall be met by implementation of BMPs to comply with minimum measures for which the permittee has authority, implementation of BMPs to comply with minimum levels of storm water pollution control established in TMDLs if applicable, and a demonstration of effectiveness or environmental benefit for each BMP.

No.	Interim Milestones	Schedule	Responsible
1	Develop and prepare baseline survey for distribution.	By March 1, 2005	Consultant and MS4 Team
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Conduct a survey of MDOT Staff on storm water knowledge during 2005 and again during 2008.	2005 and 2008	MDOT Storm Water Program Manager
2	Review the 2005 survey for baseline information.	By April 1, 2006	Consultant and MS4 Team
3	Review the 2008 survey to determine program effectiveness.	By April 1, 2009	MDOT Storm Water Program Manager
4	Increase the number of staff who are fully aware of MDOT's storm water program by 20% from 2005 to 2008.	2005 to 2008	N/A

Activity I-1: Submit and Implement Mapping Schedule for Outfalls (urbanized areas only)

Affected Party: MDOT Staff and Contractor/Consultant

Objective: To develop a mapping schedule and complete mapping of outfalls in MDOT right-of-way in urbanized areas including MDOT roads crossing 305(b)-listed water bodies and other non-impaired water bodies.

Annual Reporting: Track completed maps.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity I-5 - Map Known Outfalls
Activity C-10 - Procedure for Outfall Labeling

Permit Requirement: Part I.B.3.a: Within one year, submit schedule for maps of known outfalls. Maps shall be developed for outfalls at roadway crossings no later than expiration of Permit.

No.	Interim Milestones	Schedule	Responsible
1	Complete maps of outfalls at stream crossings over or within 300 feet of impaired waters of the state within urbanized areas based on field inspection of top priority outfalls.	By April 1, 2009	Consultant
2	Complete maps of outfalls at stream crossings over waters of the state within urbanized areas that are not field screened based on a GIS analysis.	By April 1, 2006	Consultant
3	Develop process for notifying consultant of newly constructed outfalls.	By April 1, 2009	Consultant with MS4 Team
4	Link outfall screening/investigations to the asset management team's inventory database procedure.	By April 1, 2009	Consultant
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Map outfalls in MDOT right-of-way in urbanized areas according to the schedule posted in the SWMP.	See Table 3-3	Consultant

Activity I-2: Perform Inventory and Dry Weather Screening on Outfalls

Affected Party: Consultant, MDOT Region Storm Water Coordinators, and Storm Water Program Manager

Objective: To identify illicit discharges and connections from the MDOT storm sewer system within 2000 Census urbanized areas as prioritized in the IDEP Plan.

Annual Reporting:

- Number and location of confirmed outfalls.
- Total number of suspected illicit connections/discharges identified.
- Number and location of manholes tested for each suspected illicit connection/discharge.
- Results of sample analysis.
- Description and number of illicit connections/discharges verified.
- Estimated amount and type of pollutant removed.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity I-1 - Submit and Implement Mapping Schedule for Outfalls
Activity I-4 - Updates to Legal Authority
Activity I-5 - Map Known Outfalls

Permit Requirement: Part I.B.3.b: Outfalls prioritized and top priority outfalls (305(b)-listed water bodies impaired by untreated sewage, bacteria, pathogens, nutrient enrichment, nuisance plant growth, nuisance algal growth, low dissolved oxygen, sediments, oil or grease, fish kills, and fish or macroinvertebrate communities rated poor) shall be screened for dry weather discharges.
Part I.B.3.b: Use screening results to identify and eliminate illicit discharges as expeditiously as practicable.
Part I.B.3.b: Illicit connections that cannot be disconnected immediately shall be identified in annual report and eliminated as soon as possible.

No.	Measurable Goals	Schedule	Responsible
1	Follow illicit discharge procedure (Section 3.3) for 100% of illicit discharges found.	Beginning April 1, 2005	Consultant, Storm Water Program Manager, Region Storm Water Coordinators
2	Update MDEQ of the areas selected for dry weather screening.	Monthly starting November 1, 2004	Consultant, Region Storm Water Coordinators

Activity I-3: Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken

Affected Party: MDOT Region Storm Water Coordinators, TSC Managers, and Storm Water Program Manager

Objective: To receive reports and notify the MDEQ of illicit discharges, statewide, to the MDOT storm sewer system. To take action toward removing these discharges.

Description: Procedure for receiving and responding to reports of illicit discharges is established as part of Section 9.13 of the Construction Permit Manual. Training to effectively implement the procedure will be conducted. Procedure for receiving reports from construction site runoff is already in place as part of the SESC Manual.

Annual Reporting:

- Track the number of reports received and the follow-up actions taken.
- Track the number of illicit connections/discharges identified and removed.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity T-1 - Present Training Modules to Region/TSC staff
Activity I-4 - Updates to Legal Authority

Permit Requirement: Part I.B.3.c: Provide a system to accept and respond statewide to reports of illicit discharges received from job-related public.

No.	Interim Milestone	Schedule	Responsible
1	Add illicit discharge reporting and notification information to Training Module Four.	By June 1, 2005	Consultant, Storm Water Program Manager
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Maintenance and construction staff with storm water responsibilities will be trained to follow the illicit discharge notification procedure.	By December 1, 2005	Region Storm Water Coordinators
2	Add Illicit Discharge Notification training to existing MDOT employee training database (On-Track).	By April 1, 2006	Storm Water Program Manager

Activity I-4: Report Updates and Changes to Legal Authority Status

Affected Parties: Landowners discharging or planning to discharge to MDOT's drainage system, MDOT Permit & Utilities Staff

Objective: To regulate discharges to MDOT's drainage system and require compliance with its permit.

Annual Reporting: Report changes to legal authority by revising Sections 9.13 and 14.01 of the Construction Permit Manual.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity I-2 - Perform Inventory and Dry Weather Screening on Outfalls
Activity I-3 - Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken

Permit Requirement: Part 1.B.3.d(1): Legal authority to regulate the contribution of pollutants to the drainage system.
Part 1.B.3.d(2): Legal authority to regulate the rate of water inflow.
Part 1.B.3.d(3): Legal authority to prohibit illicit connections/discharges into drainage system.
Part 1.B.3.d(4): Legal authority requiring compliance with conditions in Permit.

No.	Measurable Goal	Schedule	Responsible
1	Assess legal authority annually to determine if any updates or changes are necessary.	Annually	Permits/ Utilities

Activity I-5: Map Known Outfalls (statewide)

Affected Parties: MDOT Region Storm Water Coordinators, Planning and Design, Construction & Technology Staff, and Asset Management

Objective: To map known outfalls statewide based on existing survey information. To develop and implement a procedure to revise the known outfall maps annually.

Annual Reporting: Document the procedure for making annual map revisions, and track updated outfalls.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity I-2 - Perform Inventory and Dry Weather Screening on Outfalls
Activity C-10 - Procedure for Outfall Labeling

Permit Requirement: Part 1.B.3.a: Within one year following the effective date of this Permit, the permittee shall submit a schedule for providing maps showing the location of known outfalls.

No.	Interim Milestones	Schedule	Responsible
1	Compile survey data.	By August 1, 2005	MDOT Supervising Surveyor
2	Develop guideline to define outfalls.	By August 1, 2005	Outfall Mapping Workgroup
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Map known outfalls in MDOT right-of-way statewide according to the schedule posted in the SWMP.	Starting April 1, 2005 (See Table 3-2)	Consultant
2	Develop and implement an internal process for making annual map revisions.	By April 1, 2007	Outfall Mapping Workgroup, Consultant
3	Update known outfall maps annually and include in the annual progress report.	Annually starting April 1, 2008	Consultant, MS4 Committee

Activity C-1: Maintenance Requirements for MDOT Permanent Best Management Practices (BMPs) (Post-Construction)

Affected Party: MDOT Maintenance, Maintenance Activity Reporting System (MARS) Team, Delivery, and Design Staff

Objective: To protect receiving water quality statewide by developing and implementing maintenance requirements for permanent MDOT-approved BMPs.

Annual Reporting: Track BMP maintenance activities using MARS.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity C-6: Implement Procedures to Select and Apply Best Management Practices for Storm Water Management Activities (Post-Construction)

Permit Requirement: Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.
Part I.B.6.a(1): Statewide routine maintenance for structural controls.
Part I.B.6.a(2): In urbanized areas, cleaning schedules may need to be enhanced if control measures fail to adequately reduce the discharge of pollutants to or from the drainage system.

No.	Interim Milestones	Schedule	Responsible
1	Review draft procedure for maintenance of permanent BMPs with appropriate MDOT entities for approval.	By June 1, 2006	BMP Design and Maintenance Workgroup
2	Document maintenance procedures and issue staff guidance.	By August 1, 2006	BMP Design and Maintenance Workgroup
3	Review Maintenance Performance Guides and update accordingly.	By October 1, 2006	
4	Notify appropriate staff of changes to manuals.	By December 31, 2006	
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Develop and implement procedures for maintaining permanent BMPs not already having a maintenance procedure.	By December 31, 2006	BMP Design and Maintenance Workgroup
2	Develop and implement a procedure for maintaining each <u>new</u> permanent BMP within one year of formal adoption of the new permanent BMP.	As needed beginning December 31, 2006	MDOT Maintenance Staff
3	Maintain existing permanent BMPs according to existing MDOT procedures.	Ongoing	
4	Evaluate ways to improve maintenance practices in urbanized areas if control measures fail to adequately reduce discharge of pollution.	As needed beginning April 1, 2006	

Activity C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPOs) Having Storm Water Quality Control Programs.

Affected Parties: MDOT Staff and MPOs

Objective: To identify and coordinate, statewide, with MPOs having storm water quality control programs to properly handle storm water management issues during construction and maintenance activities.

Annual Reporting:

- Track letters distributed to the planning organizations.
- Track letters distributed to watershed and environmental groups soliciting area of concern comments.
- Track the major action environmental documents (environmental assessments and environmental impact statements) distributed to watershed groups for their comments.
- Track responses from watershed and environmental groups concerning areas of concern.
- Track any early coordination meetings held with watershed and environmental groups including whether groups attend a public meeting or comment on one of the major action documents.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity C-4 - MDEQ Early Coordination
Activity C-5 - Storm Water Discharges to TMDL Water Bodies

Permit Requirement: Part I.B: Within areas with watershed management plans, reducing discharge to the maximum extent practicable shall include implementation of BMPs to comply with watershed goals.
Part I.B.2.c: Where MPOs exist, MDOT shall identify and cooperate with local storm water master planning processes and the MPO. MDOT shall implement storm water controls as necessary to cooperate with local storm water master plans.
Part I.B.4.a: Program to coordinate with local planning efforts that conform with the cooperative planning requirements of 23 CFR 450.210 and 23 CFR 450.312 and which considers potential environmental effects of impervious surfaces.
Part I.B.4.a: MDOT shall make information available to local planning efforts.

No.	Measurable Goals	Schedule	Responsible
1	Notify recognized watershed and environmental groups that MDOT is accepting input on special BMP requirements for sensitive streams or portions of streams.	By June 1, 2005	Consultant, Storm Water Program Manager
2	Consider watershed and environmental group input during early coordination of MDOT transportation projects.	Ongoing beginning April 1, 2006.	MDOT Region Planning and Design Staff

Activity C-3: Procedure to Select, Apply, and Maintain Permanent Best Management Practices (BMPs) for Storm Water Management Activities (Post-Construction)

Affected Party: MDOT Maintenance, Planning and Design, Traffic & Safety, Maintenance Environmental Team (MET), and MS4 Team

Objective: To develop a procedure for selecting, applying and maintaining permanent BMPs for selected MDOT projects statewide.

Annual Reporting: Track permanent BMP installation and maintenance.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity C-4 - MDEQ Early Coordination
Activity C-5 - Storm Water Discharges to TMDL Water Bodies
Activity C-6 - Select, Apply, Maintain Permanent BMPs
Activity C-8 - Update Drainage Manual

Permit Requirement: Part I.B.4.b(1): Requirements for implementation of BMPs.
Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.

No.	Interim Milestones	Schedule	Responsible
1	Evaluate procedures for selecting, applying, and maintaining permanent BMPs. Approved MDOT permanent BMPs are located in the Drainage Manual. Develop a procedure to add new BMPs to the MDOT-approved BMP list.	By December 31, 2005	BMP Design and Maintenance Workgroup
2	Review options with appropriate MDOT entities including development of a funding source based on research from other states.		
3	Make a recommendation for approval.		
4	Lay out a detailed framework for the approved procedure.	By August 1, 2006	
5	Document procedure and issue staff guidance.		
6	Update the existing process in the Drainage Manual and tie the process into the scope verification procedure.	December 31, 2006	
7	Notify appropriate staff of changes to manuals.		
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Develop procedure for selecting, applying, and maintaining permanent BMPs.	By December 31, 2005	BMP Design and Maintenance Workgroup
2	All projects will be evaluated for permanent storm water BMP inclusion during scoping/early design.	Beginning December 31, 2006	MDOT Design Staff

Activity C-4: Procedure to Work With MDEQ for Early Coordination on Initial Design Projects

Affected Parties: MDOT Development, Design, Real Estate, Environmental, and Maintenance Staff and MDEQ Staff

Objective: To have early coordination with MDEQ for input on BMP type and placement of select projects statewide.

Annual Reporting:

- Track projects where early coordination was sought with MDEQ and other regulatory agencies.
- Track projects where MDEQ provided timely recommendations.
- Document actions taken based on comments received from MDEQ.
- Document the results of the annual meeting with MDEQ Water Bureau on early coordination issues.

Related Activities: Activity A-1 - Program Assessment and Reporting; Activity C-2 - Coordinate with MPOs; Activity C-5 - Storm Water Discharges to TMDL Water Bodies; Activity C-8 - Update Drainage Manual

Permit Requirement: Part I.B.4.c: Allow MDEQ review of preliminary construction plans and provide input on placement of drainage and BMPs.

No.	Interim Milestones	Schedule	Responsible
1	Develop draft procedure for early coordination on initial design projects.	By April 1, 2005	MDEQ Early Coordination Workgroup
2	Meet with MDEQ to further evaluate the early coordination procedure.		
3	Review options with appropriate MDOT and MDEQ entities and make a recommendation for approval. Update manuals and issue staff guidance accordingly.	By August 1, 2005	MDEQ Early Coordination Workgroup
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Develop procedure for coordinating with MDEQ on initial design projects.	By August 1, 2005	MDEQ Early Coordination Workgroup
2	Train design staff with storm water responsibilities.	By April 1, 2006	Region Permitting, Planning, and TSC Design Staff
3	All projects discharging to coldwater fisheries, designated Natural Rivers, and other water bodies as identified in the early coordination Memorandum of Understanding with MDEQ Water Bureau will seek involvement from appropriate regulatory agencies in the early coordination process.	By April 1, 2006	Cost/Sched. Engineer, Region Permitting, Planning, and TSC Design Staff

Activity C-5: Review Projects with Storm Water Discharges to Water Bodies with a Promulgated Total Maximum Daily Load (TMDL)

Affected Party: MDOT Maintenance, Planning and Design, Traffic & Safety, Maintenance Environmental Team (MET), MS4 Team and TSC Staff

Objective: To develop a procedure to review projects with storm water discharges to water bodies with a promulgated TMDL and to and implement storm water controls statewide to meet responsibilities established by TMDLs to the MEP.

Annual Reporting: Track location of projects, location of TMDL waters and how MDOT complied with TMDL requirements.

Related Activities: Activity A-1 - Program Assessment and Reporting; Activity C-2 - Coordinate with MPOs; Activity C-4 - MDEQ Early Coordination; Activity C-8 - Update Drainage Manual

Permit Requirement: Part I.B.paragraph 2: If a water body has a TMDL, the appropriate water quality requirements for that pollutant may be defined in the TMDL. In that event, MEP includes, but is not limited to, the development, implementation and enforcement of storm water controls designed to meet the permittee's responsibilities established by the TMDL. Any reduction achieved through implementation of controls in accordance with Part I.B. of this permit shall count toward compliance with the waste load allocation of the TMDL.

No.	Interim Milestones	Schedule	Responsible
1	Post interactive mapping system on the MDOT Storm Water Web Site showing MDOT trunklines crossing 305(b)-listed water bodies.	By June 1, 2005	Consultant
2	Evaluate various options to review projects discharging to TMDL water bodies.	By October 1, 2004	BMP Design and Maintenance Workgroup
3	Review options with appropriate MDOT entities.		
4	Make a recommendation for approval.		
5	Lay out a detailed framework for the approved procedure.	By June 1, 2006	
6	Document procedure and issue staff guidance.		
7	Review manuals and update accordingly.	February 1, 2007	
8	Notify appropriate staff of changes to manuals.		
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Review all new projects that discharge to waters of the state with a promulgated TMDL.	By April 1, 2005	MDOT Planning, Design, and TSC Staff

Activity C-6: Implement Procedures to Select, Apply, and Maintain Permanent Best Management Practices for Storm Water Management Activities (Post-Construction)

Affected Parties: MDOT Maintenance, Traffic & Safety, Planning, Design, and Construction Staff and Contractors

Objective: To protect receiving water quality by implementing post-construction BMPs statewide.

Annual Reporting: Track the permanent BMPs selected for earth-disturbing projects using existing databases. Report pollutant discharge reduction based on theoretical BMP performance.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity T-1 - Present Training Modules to Region/TSC Staff
Activity C-1 - Maintenance Requirements for MDOT Permanent Best Management Practices (BMPs)
Activity C-3 - Select, Apply, and Maintain Permanent BMPs
Activity C-8 - Update Drainage Manual

Permit Requirement: Part I.B.4.b(1): Requirements for implementation of BMPs.
Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.
Part I.B.6.a(2): In urbanized areas, structural controls may need to be enhanced if control measures fail to adequately reduce the discharge of pollutants to or from the drainage system.

No.	Interim Milestones	Schedule	Responsible
1	Upon having a BMP selection, application, and maintenance procedure in place (see Activity C-3), add procedural information to training modules.	By August 1, 2007	MDOT Planning, Design Staff
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Train design staff with storm water responsibilities on applying the permanent BMP procedure.	By April 1, 2007	MDOT Planning, Design Staff
2	Implement procedure to select, apply, and maintain permanent BMPs.	Ongoing beginning April 1, 2007	MDOT Planning, Design, and Maintenance Staff
3	Develop a procedure to estimate pollutant discharge reduction based on theoretical BMP performance.	By December 1, 2007	BMP Design and Maintenance Workgroup
4	BMPs will be modified, replaced, or enhanced if they are not properly installed, maintained and/or applied for pollutant control.	As needed beginning April 1, 2007	MDOT Planning, Design, and Maintenance Staff

Activity C-7: Internal Quality Assurance/Quality Control (QA/QC) Protocol for Construction Storm Water Control

Affected Parties: MDOT Construction & Technology (C&T), Planning, Design, and Maintenance Supervisors

Objective: To improve the effectiveness of temporary BMPs statewide through internal QA/QC for construction storm water control.

Description: Development of the QA/QC protocol is underway and will be submitted to EC for approval.

Annual Reporting: Track number and result of internal reviews and actions taken per MDOT SESC Manual.

Related Activities: Activity A-1 - Program Assessment and Reporting
Activity T-3 - Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31

Permit Requirement: Part I.B.5.a: MDOT shall meet the following requirements on MDOT construction sites statewide, but may rely on their SESC Plan and the State of Michigan's Permit by Rule to the extent that those controls meet the requirements: 1) Implement soil erosion and sedimentation controls. 2) Control demolition and construction waste materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts to water quality. 3) Consider potential water quality impacts during road construction plan reviews. 4) Inspect sites to assure pollution control measures are appropriate.

No.	Interim Milestones	Schedule	Responsible
1	Develop draft QA/QC protocol.	By December 31, 2005	C&T, Design, Planning and Maintenance
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Develop a QA/QC protocol for construction storm water control.	May 1, 2006	C&T , Environ-mental Committee
2	Inspect all sites disturbing at least one acre.	Per the SESC Manual	Part 91 Inspector

Activity C-8: Periodically Update Drainage Manual

Affected Party: MDOT Design, Construction & Technology and Region/TSC Staff

Objective: To update MDOT's policies and procedures for the design of drainage facilities by reviewing and revising MDOT's Drainage Manual as needed to include the latest details of the storm water management program.

Annual Reporting: Track changes made to the Drainage Manual

Related Activity: Activity A-1 - Program Assessment and Reporting
Activity C-4 - MDEQ Early Coordination
Activity C-5 - Storm Water Discharges to TMDL Water Bodies
Activity C-6 - Implement Procedures to Select, Apply, Maintain Permanent BMPs
Activity C-3 - Procedure to Select, Apply, Maintain Permanent BMPs

Permit Requirement: Part I.B.6.a(1): Routine maintenance on structural controls.
Part I.B.5.a(2): Control demolition and construction waste materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts to water quality.
Part I.B.4.c: Develop and implement a process for review of BMPs.

No.	Measurable Goals	Schedule	Responsible
1	Assess the need update the Drainage Manual.	Annually beginning April 1, 2005	MDOT Design (Hydraulics) Staff
2	Update the Drainage Manual. Changes to manual must be approved by the Engineering Operations Committee (EOC).	As needed.	
3	Notify appropriate staff of changes to the manual.		

Activity C-9: Documentation and Tracking of Road Maintenance Activities

Affected Party: MDOT Maintenance Staff, MARS Team, Maintenance Environmental Team (MET), and Contract Agencies

Objective: MDOT roadways will be operated and maintained and storage facilities will be constructed to reduce pollutants washing into surface waters statewide.

Annual Reporting:

- Estimate actual quantity of salt used for de-icing versus maximum calculated amount based on Maintenance Performance Guide 14100.
- Track hours of street sweeping and catch basin cleaning conducted.

Related Activity: Activity A-1 - Program Assessment and Reporting
Activity C-1 - Maintenance Requirements for MDOT Permanent BMPs

Permit Requirement: Part I.B.6: Ensure MDOT employees maintain and follow proper pollution prevention controls.
Part I.B.6.a(1): Describe and implement procedures for proper disposal of operation and maintenance waste.
Part 1.B.6.b(1):Construct, operate, and maintain surfaces statewide to reduce discharge of pollutants into system. Salt and sand applied for improved traction shall be prevented from entering receiving streams to the maximum extent practicable.
Part 1.B.6.b(1) Good Housekeeping implemented at salt and sand storage facilities.
Part I.B.6.b(2): Maintain existing street cleaning and catch basin maintenance activities.

No.	Measurable Goals	Schedule	Responsible
1	Investigate how to track contracted road maintenance activities using a pilot-study with a county. In the interim, discuss maintenance activities in terms of hours of labor.	By April 1, 2007	MDOT Storm Water Program Manager, Maintenance Staff, Contract Agency
2	20,000 hours of street sweeping will be completed annually.	Annually	Maintenance Staff, Contract Agency
3	23,000 hours of catch-basin cleaning will be completed annually.	Annually	Maintenance Staff, Contract Agency

Activity C-10: Procedure for Outfall Labeling

Affected Parties: MDOT Construction & Technology and Maintenance Staff

Objective: MDOT will provide permanent identification for all outfall structures installed after April 1, 2006 statewide.

Annual Reporting:

- Track the location and size of outfalls not labeled between April 1, 2005 and April 1, 2006.
- Track the location and size of outfalls labeled.

Related Activity: Activity A-1 - Program Assessment and Reporting
Activity T-1 - Training Modules to the Job-Related Public
Activity I-5 - Map Known Outfalls
Activity C-8 - Update Drainage Manual

Permit Requirement: Part I.B.6.c: Provide permanent identification of outfalls installed after April 1, 2005 that discharge into waters of the state. The primary operator of the drainage system shall be readily identifiable by observation of the outfall.

No.	Interim Milestones	Schedule	Responsible
1	Assess various procedures for labeling outfalls.	By January 31, 2005	Outfall Labeling Workgroup
2	Review procedures with appropriate MDOT entities and make a recommendation for approval.		
3	Develop a special provision for labeling.	By April 1, 2005	
4	Document procedure and issue staff guidance.		
5	Review and update manuals accordingly.		
6	Notify appropriate staff of changes to manuals.		
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Develop procedure for labeling all new outfall structures statewide.	By April 1, 2005	Outfall Labeling Workgroup
2	All new outfall structures will be labeled and maintained statewide.	Starting April 1, 2006	MDOT C & T and Maintenance Staff

Activity C-11: Review Flow Control Structures

Affected Party: MDOT Design and Planning Staff

Objective: MDOT will ensure that new flow control structures in urbanized areas assess impacts on water quality and whenever possible will examine existing flow control structures for inclusion of water quality BMPs to the MEP.

Description: MDOT is currently reviewing all new flow control structures as part of environmental clearance and will continue to do so. Existing flow control structures will be examined whenever possible.

Annual Reporting: Number of flow control structures reviewed and water quality benefits gained based on the theoretical pollutant removal rates.

Related Activity: Activity A-1 - Program Assessment and Reporting
Activity C-3 - Procedure to Select, Apply, and Maintain Permanent BMPs for Storm Water Management Activities (Post-Construction)

Permit Requirement: Part I.B.4.c: Develop and implement a process for review of BMPs.
Part I.B.6.d: Ensure new storm water flow management projects assess impacts of water quality on the receiving water and, whenever possible, examine existing projects for incorporation of water quality protection.

No.	Measurable Goals	Schedule	Responsible
1	All new flow control structures will be reviewed for inclusion of water quality BMPs.	Beginning August 1, 2005	MDOT Planning Specialists
2	All new flow control structures will be evaluated for water quality benefit based on the theoretical pollutant removal rate.	Beginning April 1, 2006	
3	Maintenance requirements for existing water quality controls having a water quality benefit will be developed to the maximum extent practicable.	By December 31, 2006	
4	Applicable MDOT Staff will be trained to review new and existing flow control structures.	By April 1, 2007	

Activity C-12: Audit the Pollution Incident Prevention Plan (PIPP) Requirements

Affected Party: MDOT Maintenance Staff, Region Resource Analyst/Specialist, Region/TSC Storm Water Coordinator, and Safety & Homeland Security

Objective: Assure that vehicle maintenance activities statewide do not pollute storm water runoff to the maximum extent practicable.

Description: Internal auditing of the PIPP is already conducted and implemented.

Annual Reporting:

- Summary of PIPP audits
- Document new programs, policies, procedures and information.

Related Activity: Activity A-1 - Program Assessment and Reporting
Activity T-1 - Training Modules to the Job-Related Public
Activity C-1 - Maintenance Requirements for MDOT Permanent BMPs

Permit Requirement: Part 1.B.6.: Ensure MDOT employees maintain and follow proper pollution prevention controls.
Part 1.B.6.a(1): Routine maintenance on structural controls.
Part 1.B.6.a(2): If necessary, enhance structural controls and cleaning schedules for adequate pollutant control.
Part 1.B.6.e.: Assure vehicle maintenance activities do not pollute storm water runoff.

No.	Measurable Goals	Schedule	Responsible
1	Conduct an audit of the PIPP requirements every three years.	Beginning April 1, 2006	MDOT Maintenance, Region Resource Analyst/Specialist, Region /TSC Storm Water Coordinator, or Safety & Homeland Security
2	Follow-up on any delinquent plan requirements and revise appropriately.	As needed.	
3	Formally accept the changes made to the PIPP.		

Activity A-1: Program Assessment and Reporting

Affected Party: MDOT employees involved with the storm water program.

Objective: To assess and report on the status of the MDOT Storm Water Management Plan (SWMP) on an annual basis through compiling measurable goal data, perform program assessment, review auditing activities, and prepare annual report.

Description: Conduct a yearly program assessment of the MDOT Storm Water Program and conduct annual reporting.

Annual Reporting:

- Track and document SWMP activities.
- Complete annual progress report.
- Conduct evaluation of program and make changes as needed.

Related Activities: All Activities

Permit Requirement: Part I.C: Program Assessment and Reporting

No.	Interim Milestones	Schedule	Responsible
1	Develop tracking protocol for entire plan to combine tracking and reporting for each activity. Coordinate with existing databases.	By April 1, 2006	Program Assessment and Reporting Workgroup
2	Review and test tracking program.	By April 1, 2007	
3	Compile data and draft the annual report.	Annually beginning February 1, 2005.	Consultant
4	Review the overall status of implementation of the SWMP to assure compliance with its requirements.		MDOT Storm Water Program Manager
5	Review interim milestones and measurable goals for applicability. Revise measurable goals and milestones as needed.		Consultant, Storm Water Program Manager
6	Review annual budget and revise fiscal analysis if necessary.		
7	Review the annual progress report. Provide comments and assure its accuracy.		MDOT MS4 Team
8	Conduct the final review of the annual report and issue approval for submitting to MDEQ		MDOT EC
No.	**Measurable Goals**	**Schedule**	**Responsible**
1	Submit annual reports to MDEQ.	By April 1 of each year	Storm Water Program Mgr.
2	All tracking information for the previous year will be complete and accessible for inclusion in the annual report.	By January 2 of each year.	Consultant, Storm Water Program Mgr.